

THE MEDICAL JOURNAL OF AUSTRALIA

VOL. I.—27TH YEAR.

SYDNEY, SATURDAY, MAY 11, 1940.

No. 19.

Table of Contents.

[The Whole of the Literary Matter in THE MEDICAL JOURNAL OF AUSTRALIA is Copyright.]

ORIGINAL ARTICLES—	Page.	BRITISH MEDICAL ASSOCIATION NEWS—	Page.
Behaviour Problems in General Medicine, by ANITA M. MÜHL, B.Sc., M.D., Ph.D., F.A.C.P.	651	Scientific	676
Modern Methods in Pædiatrics, by FELIX ARDEN, M.D., M.R.C.P.	657	POST-GRADUATE WORK—	
The Secondary Penal Stations of Old Van Diemen's Land, by W. H. HUDSPETH, B.A.	663	Course in Medicine at Sydney	676
REVIEWS—		NAVAL, MILITARY AND AIR FORCE—	
Classic Descriptions of Disease	667	Appointments	677
Radiological Diagnosis	667	SPECIAL CORRESPONDENCE—	
Tuberculosis of the Upper Portion of the Respiratory Tract	668	Paris Letter	678
The Care of Neuro-Surgical Patients in Hospital	668	CORRESPONDENCE—	
LEADING ARTICLES—		A Request	679
The Australian Imperial Force and its Medical Officers	669	OBITUARY—	
CURRENT COMMENT—		A Memorial to John Brooke Moore	679
The Tuberculous Teacher	671	Gustav Temple Hall Böhrsmann	680
Acute Puerperal Hypophyseal Necrosis	671	BOOKS RECEIVED	680
The Centenary of Ernst Abbe	672	DIARY FOR THE MONTH	680
A Journal Devoted to Orthoptics	673	MEDICAL APPOINTMENTS VACANT, ETC.	680
Another "Nutrition Supplement" in Brisbane	673	MEDICAL APPOINTMENTS: IMPORTANT NOTICE	680
ABSTRACTS FROM CURRENT MEDICAL LITERATURE—		EDITORIAL NOTICES	680
Ophthalmology	674		
Oto-Rhino-Laryngology	674		

BEHAVIOUR PROBLEMS IN GENERAL MEDICINE.¹

By ANITA M. MÜHL, B.Sc., M.D., Ph.D., F.A.C.P.

HALF a century ago the physician, besides being just a medical practitioner, also held the position of family confidante and adviser. He lived in an automobileless, radioless and telephoneless age, when human relationships counted for more than they do today, and when leisure was more than merely a word in the English language. This medical man had spent less time and less money on his medical education than we do today; and while he may not have been so scientific as we are, he had a lot of sound, practical knowledge, and he was more of a humanitarian than we find today. He knew his patient, and, what was more important, he knew his patient's family and the way in which the various members of that family affected his

patient. He may not have been gifted with tact to begin with, but he soon learned it, because he had to arbitrate in family disputes as well as to make peace in community quarrels. He not only had an ailment to look after, but he realized that it was a human being who had that ailment.

With the coming of the telephone and the automobile and the radio, with the increased cost of education and the greatly lengthened period of study, with the additional cost of living and the greater demands not only for comfort but for luxury, with the acute competition which has developed, the problem of the personality of the physician has changed greatly. The first serious defect in the new order is the loss of the sense of leisure; this makes it impossible for many medical men to develop the cultural side of life. Either they must read constantly in their own specialty to keep up with modern progress, or they must be dashing into some form of escape—drinking, gambling, and the myriad offerings of so-called pleasure provided for the tired business and professional man of today.

¹Read at a meeting of the Victorian Branch of the British Medical Association on February 7, 1940.

Too few find time for philosophy, economics, world history, travel, literature, music and art—the foundations of universal understanding. The lack of this cultural background gives rise to many reactions, but chiefly to the two following: (i) a feeling of inadequacy to cope with people of different backgrounds, and (ii) a sneering attitude toward those who show any interest in cultural studies.

Many, I should say most, people entering the field of medicine are imbued with a desire to help people who are suffering. Certainly that should be the motive; but to most students it soon becomes evident that after the long strenuous course of study it is going to be important to make a living, and so the search for knowledge is conditioned by the need to make money. The problem then arises: in which field can the most money be made? The idealism which is the outstanding factor in the beginning is subject to disillusionment, and this disillusionment, according to the personality of the individual, gradually turns into either discouragement or cynicism. Perhaps it may be well to pause here for a moment and refresh your minds about the various ordinary types of people we meet, both among physicians and among patients. Unless we keep these variations in our awareness we may make mistakes in dealing with people.

There are three ordinary types known by everyone in everyday life. There is the shut-in or extremely bashful type, warding off all possibility of hurt by retiring within the self. This kind of individual spends a great deal of time in day-dreaming. It takes him much longer to dress himself and much longer to go to bed than the ordinary person. He may get one sock and shoe on and then sit with the other shoe dangling while he wrestles with some inner problem. At breakfast he retires behind a newspaper and answers in monosyllables or grunts if he even hears the questions which are addressed to him. He is apt to be supersensitive, though he will not admit it, and he dreads being projected into new situations. In the case of the feminine sex there is apt to be a dread of meeting new people, and excuses are made to keep from going to parties where there will be many new people to encounter. Having begun this way in childhood, these people may remain thus all their lives; or they may at the adolescent period find the world too much for them and gradually withdraw until we see them with well-developed dissociative trends. If they receive the proper treatment in the beginning they are able to overcome these patterns of adjustment and to develop out of them.

The "grouch" or cynic type everyone knows. As a child he is negativistic, avoiding responsibility for his own misdemeanours, blaming others for his shortcomings, snarling and sneering when crossed. He is secretive and fault-finding. He may remain thus, merely disagreeable until the end; but in adolescence there may be a definite change and the characteristics may become exaggerated. In adult life we may find him with a pose of sneering superiority, suspiciousness intensified to the point

of feeling himself persecuted and with hatred so thoroughly developed that he may become dangerous. These exaggerated cynic "grouch" types become our very difficult psychopaths, and when the condition is greatly intensified they become our dangerous paranoids. The milder types in Australia turn into what are known as "hecklers".

The last well-known, and by far the most easily recognized type, is the moody or oscillating type. These are the people of ups and downs, exuberant one day, blue and depressed the next. They may keep up this mild alternation of moods throughout life, being alternately elated and low-spirited; but they may also exaggerate these characteristics to the point at which they develop a more pathological intensity of the alternating moods. When the elation becomes an unmanageable flight of activity and the low spirit develops into a depression with overwhelming retardation, then we have a psychosis instead of an ordinary behaviour type.

We must remember that the pathological manifestations are merely exaggerations of a normal personality type, and we must remember too that each person has a breaking point. For some it is very remote; for others it is much nearer. Naturally the well-balanced, emotionally stable person will be able to withstand greater strain than the nervous, restless, unstable person. But for every person, somewhere, there is a point beyond which adjustment can fail and the chaotic forces of the unconscious replace the well-ordered forces of the conscious. It is useful to keep this in mind and not to strain beyond one's endurance and abilities.

Maladjustment, whether emotional, social or economic (including the general term "failure") is caused by an unsuccessful struggle to adjust the inner or emotional life of the individual to the demands of society and of reality as a whole. In the last analysis the failure is always caused by a misuse of energy—that is, either by tying up too much through repressed emotions or by giving out too much through uncontrolled expressed emotions. Both are quite disastrous to the healthy adjustment of the individual. Repression is always running away from a situation, an unconscious repudiation of a given condition or of an idea. It is an attempted unconscious defence mechanism based on cowardice and the inability to accept oneself as one is; it results from the fear of the consequences of one's thoughts and reactions. Self-control, on the other hand, implies facing a situation or unpleasant reaction squarely, recognizing it fully and working out a means of solving it and redirecting the energy into socially acceptable as well as self-satisfactory channels. The trouble is that so often people think that repression signifies control, whereas it signifies anything but self-control.

In the lesser disturbances of adjustment we have the emotionally uncontrolled people, among whom

are found children as well as adults; there are those who have fear reactions which are expressed in various ways, such as nightmares, the fear of high places or of enclosed places, the fear of crowds or of solitude, the feeling that compels the touching or counting of certain objects, and the great collection of morbid doubts.

Actual situations in medical cases which suggest an underlying inability of a person to adjust himself satisfactorily to life are much more numerous than the general practitioner recognizes. These cases may be grouped for the present discussion as follows: (i) the patient who gains something by being ill, (ii) the patient who is responding to a feeling of inadequacy and frustration, (iii) the compulsion neurotics.

Let us take the patient who gains something by being ill, and look at this factor, which often retards convalescence and makes for invalidism. In most cases of this type we must keep in mind the fact that the patient is not consciously aware that he is making use of this mechanism. Often the patient remains ill in order to get out of a painful situation. We all know the child who develops a stomach-ache or a headache or a tooth-ache if he has not accomplished a certain assignment or if he faces a reprimand at school. But the adult does the same thing, only he does not get over his symptoms so quickly. There are people who become nauseated and definitely ill if they have to do an unpleasant task, others who develop a headache of greater or less intensity, others who have severe diarrhoea, and still others who have heart attacks when faced with an unacceptable situation. If one watches these people carefully, one finds that the symptoms always arise under given conditions. Naturally it is not enough to give a palliative in such a situation, for while the palliative corrects the condition at the moment, it does nothing to correct the inability to meet the unpleasant condition which is fundamental. Perhaps the patient is gaining something by getting even with another person when no other form of retaliation seems available. This happens often in marital situations, and husbands make use of it as well as wives. Here again the failure to adjust oneself to life and to behave adequately is unrecognized by the person who is sick, and it is the responsibility of the physician to let the patient see what he or she is doing. In some cases the patient is really responding to a disguised death wish. Many people have little desire to live, yet they will not attempt suicide because that would not be compatible with their ideals. Illness is a socially acceptable situation and the unconscious death wish often keeps the patient from getting well. The most frequent condition found in medical practice when the patient is getting something by being ill is seen in older people who desire to dominate and hold younger members of the family in subjugation.

I recall one frail old lady who had been a tyrant all her life and who dominated her children completely. The son finally left home, and when the daughter decided to go for a trip the mother immediately had a heart attack

and then had repeated "sinking spells". The daughter gave up her trip, the son rushed home and the old lady recovered. The son returned to his work and the daughter made plans anew for a trip, when the old lady had another heart attack and had to go to a hospital for several weeks. The son rushed home again. This kept on for ten years until both son and daughter were victims of frustration and anxiety. As long as the old lady had her own way and could keep her daughter in subjugation she was quite well, but if anything threatened her supremacy she became very ill. Finally the daughter sought help, as she was near an emotional "crack-up". When she was informed that her only salvation lay in walking out on the situation she was aghast. She could not face the possibility of making her mother so ill that she might die, and so on. When she was reminded that her mother had not died, she said: "Yes, but then I've always given in to her and that is what has saved her." Eventually she was induced to buy her tickets and say nothing until all her arrangements were made for leaving. As usual, the mother had a dreadful attack and sent for her son. He, however, had been given instructions, and he telegraphed his regrets, but did not come. The daughter left, and when the old lady found that her weapon had finally failed she went off on a trip herself and had a grand time.

These cases of old-age tyranny are very common and are easy to manage, provided the physician is firm, kindly, and has a working sense of humour.

The next problem in behaviour and failure of adaptation is the response to a feeling of inadequacy and frustration. Many defectives have a progression of symptoms and are always ailing in some manner. The low-grade moron is especially full of complaints, and unless one is aware of this one may become impatient with this type of individual. These people always have a feeling of frustration and often have an uncontrollable temper with it. This same reaction to inadequacy follows failures in studies at school. We see many children who do not seem to recover from ordinary illnesses as they should, and when we make an investigation we find a pattern of failure in the background. This may produce disturbed sleep, disturbed appetite and various twitchings and tics. These patients must be handled carefully, because they are in real need of assistance.

Marital situations give rise to many problems in adjustment, and one would need to write several text-books to cover them all. These failures of adjustment are often due to differences in temperament and to the fact that persons of opposite types find it difficult to understand one another and to make allowances for the various differences. Incompatibilities, whether in husbands and wives, brothers and sisters, or children and parents, cause a great deal of unhappiness and frequently give rise to domination of the more suggestible members of a family. Again I stress the need to know about the variation of personality patterns if you are to be able to help patients to the fullest.

The most difficult patient the general practitioner has to deal with is the compulsion neurotic, who rarely gets into the hands of a psychiatrist early enough to be greatly helped. The compulsive type most frequently met with in general practice is the one who goes to every new doctor with the story that no one has ever understood her symptoms:

"And, doctor, I have the fullest confidence that you will be able to help me." She gives a list of all the doctors she has been to and how they all had found her such an unusual case that they had not been able to find the cause of her difficulty. The unsuspecting physician falls neatly into the trap and goes about studying the obscure symptoms with all the scientific apparatus at his command. He prescribes treatment, and, wonder of wonders, the patient improves, and he feels all set up to think that he has succeeded where the others have failed. And just as he thinks he has the patient well, all her symptoms return in increased quantity, as well as quality, and she informs her doctor definitely that no one will ever be able to help her. These patients do not get well because to do so would be to admit that the doctor was right, and the chief object of the compulsion neurotic is to prove that the other person is in the wrong; and so the patient moves on to the next doctor and she has one more for her list of those who have failed! It is really a tragic situation, because these patients are actually miserable, they are unhappy and they are suffering, and yet unconsciously they cannot let themselves get well. The compulsion neurotic is a case for a thoroughly trained psychiatrist, and then it is the slowest kind of a task even for the trained specialist. Few of the compulsion neurotics will actually carry psychotherapy through to the end, because they cannot stand facing their own feelings of guilt and hatred.

These are a few of the general problems met with in everyday practice. Now let us take up some more specific disorders. In the gastro-intestinal tract we have any number of problems which have emotional concomitants. Feeding problems in children are apt to be psychological, and are frequently "attention-getting mechanisms". Then, too, children can become conditioned to a dislike of certain foods and they will continue to refuse the food so long as the conditioning factor remains.

One child who loved tomatoes ate a great many during canning time. She was told not to eat so many, but she surreptitiously continued to gorge on the lovely, ripe, raw fruit. Then she became very sick, and she vomited and vomited. She got scant sympathy, and added to that she had a feeling of guilt because she had not stopped when she was told. After that she found it impossible to eat raw tomatoes, although she could eat cooked ones with ease. It was not until some twenty-five years later that she recalled the initial experience of nausea and ripe tomatoes, and when this conditioned reaction was released she was able to eat the raw fruit without any unpleasant reaction.

Another child had a severe attack of ptomaine poisoning after eating some ice-cream with strong vanilla flavouring, which had been kept too long in cold storage. After this she was unable to eat vanilla ice-cream, though she could eat all fruit-flavoured ices and chocolate ice-cream. It took years to change the conditioning to the vanilla flavouring, simply because the original unpleasant situation had been lost sight of.

Another child, aged about four years, was sitting primly in a tram here in Melbourne and her mother was talking about her to a friend. Said the mother, giggling: "She asked where babies came from and I told her they came out of cauliflowers, and you know" (giggling in a high-

pitched voice) "she wouldn't eat any cauliflower after that." The child's mouth was pinched together and she was flushed, and she seemed to be drawing herself as far into the corner as she could.

One can see that child going through life having a distaste for cauliflower and not knowing why.

May I digress just at this point to mention that it is always important to remember that one should never discuss a child in its presence, nor should one discuss a patient when the patient is present. If the physician must give directions to the nurse, let him do it where the patient cannot hear him. The patient hangs on every word the doctor says and often becomes alarmed over some remark which he does not understand.

Always excluding any mechanical or organic reason for not eating, one must consider in the adolescent the desire to be slim and willowy. Many young girls will not eat because they are afraid of growing fat. They may have mothers who are fat and unæsthetic to look at, and they do not want to be the same. A more serious problem in the adolescent is associated with an obsessional mechanism. A girl may decide that certain foods are not necessary, and because someone has ridiculed her for being fat when she is merely a pound or two overweight, she becomes obsessed with the idea that she is obese, and nothing can convince her that she is not. She keeps on dieting until she is so emaciated that she is unable to keep up with her work and she lapses into a schizophrenic condition. You may say that this is an exaggerated illustration; and yet in less than a year's time two such cases have been called to my attention. In neither case had the family any recognition of the truly pathological factors involved, although the physicians who reported them recognized the urgency of the situation.

In the adult, one of the earliest signs of depression is often a failure of appetite, and when one finds this symptom without any physical cause to account for it, one needs to keep an impending depression in mind. Chronic hyperacidity and colitis I have dealt with in other papers,⁽¹⁾ and except to mention that in all cases of chronic hyperacidity and of chronic spastic colitis one must always look for the emotional factor if one wishes to make the patient entirely well, I shall not dwell on these cases at this time.

We next come to another very common problem in general medicine, and that is the tense patient who does not sleep. Insomnia is a common symptom in young and old alike, and it always has the same basic emotional cause—fear and a sense of insecurity, regardless of whether the patient realizes this or not. Many children cannot sleep in the dark, and on investigation one finds that the child has been conditioned to a fear of the dark through some other individual. Often to permit a small gleam of light to enter the room is enough to correct the condition, though it does nothing to discover the fear which first produced the sleeplessness.

One child, who had been to a hospital and had been under observation by several pediatricians for over a year, continued to be a prey to insomnia. In giving his account of the condition he simply stated that as soon as night came he became more awake than he ever was during the daytime. When I asked him to tell all the fears he could remember ever having had, a gleam of interest came into his eyes, and he said: "It's about time someone was getting down to brass tacks."

This element of the case had not entered the head of the paediatrician because the boy had the reputation of being a daredevil and a really "tough egg". Many children are afraid of the dark and are ashamed to say so; but if a child is afraid, something should be done about it. Ridicule should never be used; neither should undue sympathy be tendered. A casual acceptance of the situation, with an offer to help rid the patient of his uncomfortable state, is a good way to start the process of educating the patient away from insomnia.

Patients almost always think they sleep much less than they really do; but the periods of wakefulness seem so very long that they completely overshadow the periods of actual sleep. The physician who can teach the patient to make use of a technique of relaxation is doing a great deal for that patient. A patient who is able to relax does not care whether he is awake or asleep, and consequently he is quite apt to sleep. It is the intense striving for sleep that defeats its own ends. It is, of course, at times necessary to prescribe soporifics, but soporifics never really cure insomnia, for the underlying cause may at any time induce a return of the condition.

People may be sleepless when they are working too hard, you say, and they are all "keyed up". True; but hard work, mental or physical, should make for the kind of tiredness which induces sleep. If the individuals are not suddenly assailed by apprehension, which in less tense states is dormant and unrecognized, they will sleep. I am sorry I cannot go into the technique of relaxation with you at this period, as that requires a much longer discussion than we have time for tonight. But let me assure you that people from childhood to old age are able to learn a method of relaxation which ensures a restful sleep.

Insomnia in older patients involves a number of problems. It is quite usual to find patients past seventy facing the idea of death and not being willing to accept that idea. From earliest years they have grown up with the idea of eternal rest being synonymous with death. During the earlier years this may not be disturbing; but as the individual really nears the point of dying all of these earlier associations of ideas are not only revived but intensified, and the patient does not sleep because there is the unconscious fear of not waking up. I have worked with many of these older patients, and when they have been able to clarify these ideas they have been able to sleep again. The fears from which these older patients suffer are rather vague, nameless dreads; but they are immensely disturbing to them. Some of the most grateful patients in the world are these older

people who have been taught how to sleep peacefully and fearlessly again.

The next group of patients who are commonly met with are the patients who suffer from periodic exhaustion, and sometimes from chronic exhaustion. Again, when all physical sources of exhaustion are ruled out and the condition still prevails, then one must realize that the patient is responding to a chronic low-grade tension which is stimulated by unrecognized or perhaps only partially recognized emotional tension. These patients again benefit by the steady use of the relaxation technique, and are eventually able to keep out of the state of exhaustion altogether. Many patients wake up feeling utterly exhausted after sleeping all night. If one investigates these cases carefully one finds that these patients sleep, but their sleep is so filled with dream activity, often of an apprehensive type, that the sleep is of very little value as rest.

There are other patients who seem to have no "self-starter". They have good ideas, they are intelligent, but they seem to have no initiative. I say they seem to have no initiative, because they generally have a great deal of initiative which has become blocked. This generally is associated with the early discouragement of a suggestible type of person.

The next point I wish to bring to your attention is the difference between the hysterical patient and the patient who develops chronic organic disturbances because of chronic emotional reactions. I find that the average medical practitioner is prone to dismiss all patients with emotional disorders as hysterics. This is very unwise as well as unscientific. The hysterical patient is one in whom symptoms of almost any variety are produced as a result of one or more profound emotional shocks. The hysterics all have loosely integrated personalities, and they convert the energy of the repressed shock into various bodily symptoms. They may produce symptoms of almost any disease without any organic change taking place, and when the seizure is over, the patient is well for the time being. It is advisable to keep in mind that the suffering of the hysterical patient is not imaginary, even if the symptoms have no basis in fact. It is too common entirely for the physician to fail to recognize the actual suffering of the patient at the time, merely because he finds no physical basis for it.

In the patients with submerged chronic emotional situations the picture is entirely different.⁽¹⁾ A number of fears or resentments or a combination of both keeps piling up continuously. There is a low-grade cumulative emotional state—generally unrecognized by the patient—which reacts through the autonomic nervous system, causing actual changes in secretions and various distortions of balance in the respiratory, circulatory and gastrointestinal tracts. These changes occur because of the prolonged stimulation of the actual fibres of the autonomic nerves. The disorder that develops will depend on whether the sympathetic division or parasympathetic division is more involved, and

on which particular system is weaker. In both the hysterics and the illnesses with chronic emotional concomitants the patient requires help and understanding. Many times a patient of the second type would like to discuss some fears and apprehensions, but because the physician seems in such a hurry the patient loses courage.

One very fine physician taught his patients never to discuss worries, and his motto was: "Forget it." When I happened to be doing some research work while on the staff of his hospital, many of the patients said to me: "If I could only talk about the things that bother me I am sure I should feel better; but I am never encouraged to do so." When I asked the chief-of-staff about this, he said: "I have two reasons for it: one, I haven't time to listen to their troubles, and two, I wouldn't know what to do about it if they did tell me."

The point is that it is often quite enough in the second group of patients merely to be able to talk about a disturbing idea. Once it is discussed it does not seem nearly so formidable. Every physician should cultivate the faculty of listening. Listening is ordinarily an art; it becomes a science when what has been heard is converted into something that becomes integratively and constructively useful for the person who has told it.

Another problem which is met with frequently is the problem of the unmarried daughter in a family. In many otherwise enlightened families it is still a fallacious assumption that the unmarried daughter should be the emotional drudge and buffer in the family and should have no life of her own. The married brothers and sisters are apt to take advantage of a good-natured sister who has remained at home, getting her to mind the children, evidently under the mistaken idea that they are conferring a favour. The parents take it for granted that because the daughter is at home she should devote all her attention to them. All the members of the family seem to think they have the right to dictate friends, clothes, recreations and activities of all kinds. I have had to intervene in so many cases of this kind that I realize how great a problem it is. Often the physician, in his capacity of counsellor to the family, can alter the situation through tactful suggestions and help the young woman to get up courage enough to assert herself. As a rule the situation develops so insidiously that the victim is caught in a net of resentment, frustration, futility and discouragement, so overwhelming that it takes time to release her. These patients invariably develop numerous complaints; they have lowered physical resistance to disease and they suffer periods of exhaustion and depression. They always speak of feeling hopelessly trapped when they really "let go of" their feelings on the subject.

There is another problem I should like to discuss with you. It is an important one, in that the family physician is apt to be the first medical person to come in contact with it, and that if he realizes the implications he can do a great deal to prevent serious difficulties from developing. I am referring to the non-specific symptoms of *dementia præcox*, or schizophrenia as it is being termed more

frequently. *Dementia præcox* is one of the preventable disorders, and if we learn to recognize the symptoms which precede the actual disorder itself, we can, of course, cope with the situation from the standpoint of prevention. I feel that it is the duty of every physician and every educator to recognize these factors and to educate the young person away from these tendencies.

NON-SPECIFIC EARLY SYMPTOMS OF DEMENTIA PRÆCOX.
Elements in Various Patterns.

Type of Patient.		
Group I. Hypoactive Patterns.	Group II. Mixed Patterns.	Group III. Hyperactive Patterns.
Likes to be alone; stays indoors.	Irritable.	Has pains, somatic complaints, posture oddities.
Has no friends.	Suffers from dizziness.	Has suggestibility, alternating with negativism; sensitivity.
Takes a long time to answer questions; withdrawn; quiet.	Suffers from pressure in the head.	Impatience; has tantrums; moody.
Loses ambition.	Forgets; is unable to memorize easily.	Uneasy; apprehensive; worried.
Loses interest in his appearance.	Has insomnia; has alternating activity and lack of energy.	Has unusual interest in philosophy, morals, religion.
Day-dreams; is pre-occupied.	Has a dull expression in the eyes.	Has a gross appetite.
Has poor concentration; performs poorly.	Has a feeling of being two people.	Has nightmares, poor sleep, insomnia.
Is fatigued; lacks energy.	Has a feeling of strangeness; has vague feelings of unreality.	Irritable; tense; has periods of exhaustion.
Depressed.	"Wants to jump out of skin."	Fault-finding; critical; moralizing.

These non-specific symptoms are all indicative of an energy imbalance and should be treated from that point of view.

Those patients with symptoms of the hypoactive pattern should be drawn out of themselves, and definite creative outlets should be found for the phantasies. It is important to remember that in order to be effective these creative outlets must be satisfactory to the individual. Special attention should be given to proper diet, proper elimination and the direction of energy into suitable channels.

Those with symptoms of the hyperactive pattern should be directed in supervised physical activities suitable to their needs; they should be supplied with unexciting amusement and recreation, and they should be encouraged in developing a taste for humorous reading. Above all, outlets must be found for the energy which will provide a means of producing something concrete that will give

the individual a sense of accomplishment. The hyperactive group in particular needs a goal idea and a definite practical interest of some kind.

For the mixed group very special hygiene, both physical and mental, is needed. The non-specific symptoms noted in the mixed group—that is, irritability, forgetfulness, difficulty in committing things to memory, insomnia, vague feelings of unreality, alternating bursts of energy and slumps of inertia—are precursors in three well-known conditions: *dementia præcox*, incipient tuberculosis and neurasthenia. When this particular group of non-specific symptoms is present it is most necessary to have a careful differential diagnosis, which is not always easy at this stage, and then it becomes all-important to do something as quickly as possible in clearing up the situation. Alternate periods of systematic rest and graded activity are very necessary. Short periods of reading and concentration should alternate with light reading. No attempt should be made to remember things, but the individual should be taught to note them in a book and to refer to the notes until such time as the memory is clear. Patients in the mixed group should be put on a routine of getting up and of going to bed at scheduled times. There should be no over-straining with mental activity, but there should be plenty of varied interesting mental work not beyond the intellectual capacity at any time.

If one can get at the cause of the vague fears, apprehensions, worries, anxieties and other uncomfortable symptoms during this period of non-specific manifestation, then it is possible to clear up these emotional foci so that they cannot develop later into the more profound disturbances. When we realize that the neurotic symptom appears when the individual finds that he cannot adjust himself to his environment, we realize why we stress constructive adjustment and adaptation in modern medicine and modern education.

Is there any recipe for preventing behaviour problems and for developing adequate adjustment to life? Perhaps not; but at least there are some definite ideas which are practical and universally applicable. The foundations for satisfactory adaptation must be laid in childhood. These foundations should include the ability (i) to respond constructively to intelligent discipline without being dominated, (ii) to develop self-control without being repressed, (iii) to face reality without dimming creative imagination, (iv) to be able and willing to accept responsibility for one's own mistakes without developing a sense of inferiority or a feeling of guilt. Such a child would grow up with a sense of freedom, of security and of responsibility which would enable him to adjust himself satisfactorily in most circumstances throughout life. In conclusion, may I stress again the need for you to have an understanding of your patient as a human being and to see your patient in relationship to family and to environment as well as in relationship to the symptoms complained of.

Reference.

- (1) A. M. Mühl: "Fundamental Personality Trends in Tuberculous Women", *The Psychoanalytic Review*, Volume X, Number 4, October, 1923, page 380; "Tuberculosis from the Psychiatric Approach: A Follow Up", *ibidem*, Volume XVI, Number 4, October, 1923, page 397; "Emotional Factors in General Medicine", *THE MEDICAL JOURNAL OF AUSTRALIA*, September 2, 1939, page 345; "Problems in General Medicine from the Emotional Standpoint", *The Psychoanalytic Review*, Volume XVI, Number 4, October, 1929, page 390.

MODERN METHODS IN PÆDIATRICS.¹

By FELIX ARDEN, M.D., M.R.C.P.,

Medical Superintendent, Hospital for Sick Children,
Brisbane.

I PROPOSE to take you for an imaginary tour of the wards of a children's hospital and to describe, as best I can, the sort of work that is going on today.

Nutrition.

A most important modern trend is the growing appreciation of the connexion between faulty nutrition and ill health. We are not now concerned to any great extent with clear-cut deficiency diseases, but with conditions of partial deficiency. It is the ill-fed child, other things being equal, who recovers most slowly from serious illnesses. And in such children one sees, too often, fleeting muscle pains progressing to rheumatism, and chronic bronchitis arising from repeated colds.

Many other children, not actually undernourished, lack sufficient "protective" foods (milk, butter, eggs, meat, fruit and vegetables) to balance their carbohydrate intake. One result of such a diet is the occurrence of what Robert Hutchison⁽¹⁾ calls "intestinal dyspepsia". Thin children, aged six years or so, are brought to hospital because they are languid and peevish. Their appetite is capricious; they refuse meals and eat biscuits between times. They are restless at night, and constipated, and pass threadworms in their motions. These children are pale and have dark rings under the eyes; their tongues are furred and their tonsils enlarged, and they stand badly, with drooping shoulders and prominent abdomens. On examination no gross organic disease can be discovered.

Their symptoms are not primarily due to constipation or to threadworms or to enlarged tonsils, although they may have received treatment for all these troubles. Their condition improves noticeably, however, even to the disappearance of the threadworms, when a simple rearrangement of the diet is effected so that they eat less sugar and starch and proportionately more "protective" foods. It is not enough to order a new diet unless the parents have the wisdom to enforce it, and generally such children are better in hospital than at home. In addition, some preparation of vitamin B should always be given to them, for it will at least improve their appetite and relieve constipa-

¹ Read at a meeting of the Maryborough Local Medical Association on December 9, 1939.

tion. Their excessive carbohydrate diet has almost certainly been deficient in vitamin B, and such a deficiency has been shown to produce anorexia, general lassitude and retarded growth.⁽²⁾

Hutchison stated years ago that threadworms lived only in an unhealthy bowel, and an interesting commentary on his work is provided by the recent discovery that *Oxyuris* infestation can be cured by the administration of a teaspoonful of wheat-germ oil daily without the use of any anthelmintic whatever. One can only conclude that some constituent of wheat-germ oil so improves the health of the intestinal mucosa that it becomes an unsuitable breeding ground for threadworms.

The Intravenous Administration of Saline Solutions and Blood Transfusions.

Once inside our hypothetical hospital, you would find that one of the greatest changes in methods of treatment as compared with those of ten years ago was the frequent use now made of the intravenous infusion of saline solutions and of blood transfusions. Physicians have but lately come to appreciate the grave danger of permitting loss of water and of chlorides. Children who vomit repeatedly soon become dehydrated, and this condition is responsible for most of the "toxæmia" associated with gastro-enteritis or post-operative ileus. Liberal supplies of fluid are required in the majority of serious illnesses. If the patient is vomiting it is fair to try tap-water *per rectum*, and, if this is not retained, saline solution should at once be given intravenously by the "continuous drip" method.

There is not very much scope in children's wards for subcutaneous infusions of saline solution. They are painful, and the amount of fluid one can distribute under the skin is small. Actually, at the Hospital for Sick Children we seldom give saline solution subcutaneously, except to small babies immediately before a major operation.

Intravenous "drip" therapy finds its greatest use in the conditions that cause dehydration, especially diarrhoea and vomiting and certain post-operative states. Glucose in 10% solution is given by the same route when a child needs nourishment and has difficulty in swallowing, as in severe faucial diphtheria.

A blood transfusion is needed every few days in our 200-bed hospital. It is occasionally necessary to combat sudden severe blood loss, the commonest cause of which in children is hæmorrhage after tonsillectomy. Periodically there are children with primary blood diseases who may need repeated transfusions.

One baby, born with acute hæmolytic anæmia, was given three transfusions in the first fortnight of life and three more during the next six weeks. He finally recovered, although his hæmoglobin value was at one stage as low as 25%.

But the third and most frequent call for blood transfusions is for marasmic babies and for children suffering from delayed recovery from severe pneumonia or osteomyelitis or some other infection.

Not infrequently children partially recover from a grave illness and then become pale and listless and cease to make progress. When this happens, a timely blood transfusion is the most effective means of putting them once more on the road to health.

Sulphapyridine.

No account of modern methods in pædiatrics could pass without reference to the value of sulphapyridine, better known perhaps as "M & B 693".

Table I, showing the deaths from uncomplicated pneumonia in the Hospital for Sick Children before and after the introduction of sulphapyridine, speaks more plainly than words.

TABLE I.
Deaths from Uncomplicated Pneumonia before and after the Introduction of Sulphapyridine.

Age Group.	Fifteen Months Before. (20/7/37 to 20/10/38.)	Fifteen Months After. (20/10/38 to 20/1/40.)
Birth to 18 months	21	7
18 months to 12 years	6	Nil

In the compilation of these figures broncho-pneumonia and lobar pneumonia have been counted together, and all cases have been excluded in which pneumonia supervened during the course of some other disease, such as mongolism, erythredema, celiac disease or bronchiectasis. Only two children in the hospital have developed empyema since the introduction of "M & B 693", and in both cases the pus from the pleural cavity yielded a growth of *Staphylococcus aureus* in pure culture.

Apart from its use in pneumonia and upper respiratory tract infections, sulphapyridine gives excellent results in the early stages of acute *otitis media* and acute mastoiditis, frequently making it unnecessary to incise the ear drum and sometimes saving a mastoid operation. As this drug is just as efficacious as sulphonamide against streptococci, it should always be used in preference to the latter in such conditions as *otitis media*, when the causal organism is in doubt.

The majority of cases of acute pyelitis clear up quickly with sulphapyridine provided no urinary stasis is present. For the child's comfort the urine should be made alkaline and fluids should not be restricted. One need only resort to the more irksome mandelic acid therapy if "M & B 693" fails. After this catalogue of its virtues I must confess, however, that we have found sulphapyridine quite useless in two serious diseases—acute rheumatism and acute osteomyelitis.

As a rough standard dose we give children aged two years and upwards one tablet (0.5 gramme) every four hours for three days (total 9.0 grammes) and then cease the administration, except in special circumstances. Proportionately smaller doses go to the babies. Ideally, the concentration of the drug in the blood stream should

be frequently estimated and the dose arranged to keep it steadily at 10 milligrammes per 100 cubic centimetres. We have not done this, and I question whether it is worth while. On the dosage scale outlined there have been no serious toxic manifestations. Indeed with "M & B 693" the child has an advantage over its parents; for many adults vomit the drug or feel nauseated, whereas children tolerate it fairly well.

"Eumydrine."

Since Dr. Elizabeth Svendsgaard⁽³⁾ described the treatment of congenital pyloric stenosis with "Eumydrine" it has become justly popular, and some hold that by its intelligent use operation can be avoided in nearly all cases.⁽⁴⁾ "Eumydrine" is an atropine derivative and should be prescribed in a fresh 1:10,000 aqueous solution in doses of one to five cubic centimetres half an hour before each feed. As a rule vomiting is not completely checked at once, and it may be some weeks before the baby is retaining sufficient food to gain weight normally. When this stage is reached the dose should be gradually reduced. To guard against poisoning, treatment in severe cases should be delayed until sufficient saline solution has been given to replace the water and chlorides lost by vomiting.

In our experience "Eumydrine" has not always proved successful and has one disadvantage: in advanced pyloric stenosis babies only recover slowly on the régime described, and may be in the ward for ten weeks or more in a partially marasmic state. This exposes them to the serious danger of acquiring some other infection, and I have seen one child succumb in this way. Such a risk has to be weighed against the risks of operation.

Undoubtedly "Eumydrine" is excellent for those mild cases in which the baby has not lost much weight, and especially in the rather indefinite group, who vomit but have doubtful peristaltic waves and no palpable tumour—a condition which could be called pyloric spasm rather than pyloric stenosis. But we are still sending the severe cases to the surgeons.

Nutritional Anæmia in Babies.

It was not considered unusual for babies to become anæmic during their first year of life until Dr. Helen Mackay demonstrated that their anæmia could be cured by the administration of iron and that the morbidity and mortality among babies so treated were much decreased. That is to say, the anæmia which so many babies show in the latter part of their first year is not physiological but pathological. It is, in fact, a nutritional anæmia and a natural sequel of the milk and cereal diet so often given to older babies.

The iron content of both milk and cereals being very low, they need to be supplemented during the six to twelve months' period with such iron-containing foods as meat juice, egg yolk and sieved green vegetables. A chart is attached which represents the standard practice at the hospital, the aim being to have the baby eating a good mixed diet by the time he is twelve months old.

Gastro-Enteritis.

Infants suffering from diarrhœa and vomiting sometimes cause a great deal of anxiety because of the rapidity with which they become dehydrated and collapse in hot weather; but we do not witness nowadays a regular summer epidemic. This improvement can be chiefly credited to the educational work among mothers carried on by the maternal and child welfare centres.

I am not a believer in the preliminary dose of castor oil and never give it. These babies have had at least half a dozen motions before seeing the doctor. They are therefore responding physiologically to any irritative substances (bacterial or otherwise) present in their intestinal tract, and it seems unreasonable to add further to their dehydration or to the irritability of their bowels.

In the early stages they need only fluid and should be given water, or 5% glucose solution, or half-strength saline, or Ringer's or Hartmann's solution in generous measure. If fluid taken by mouth is vomited, it is best given intravenously by the "continuous drip" method at an approximate

Chart showing Additions to Babies' Milk Diet.

Age.	Vitamin A and D Concentrate.	Orange Juice.	Cereal Jelly or Cooked Cereal.	Broth or Meat Juice.	Egg Yolk.	Vegetable Purée.	Fruit Pulp. (Cooked.)	Baked Potato.	Fish, Brains, or Scraped Beef.
0 to 2 weeks	—	—	—	—	—	—	—	—	—
2 to 4 weeks	2 drops.	1 drachm.	—	—	—	—	—	—	—
1 to 2 months	5 drops.	2 drachms.	—	—	—	—	—	—	—
2 to 3 months	5 drops.	4 oz.	—	—	—	—	—	—	—
3 to 4 months	5 drops.	1 oz.	—	—	—	—	—	—	—
4 to 5 months	Emulsion: 1 drachm.	1 oz.	—	—	—	—	—	—	—
5 to 6 months	2 drachms.	1 oz.	½ oz.	½ oz.	½ drachm.	—	—	—	—
6 to 7 months	2 drachms.	1 oz.	1 oz.	1 oz.	1 drachm.	2 drachms.	—	—	—
7 to 8 months	2 drachms.	1 oz.	2 ozs.	2 ozs.	2 drachms.	½ oz.	2 drachms.	—	—
8 to 9 months	2 drachms.	1 oz.	3 ozs.	3 ozs.	Whole yolk.	1 oz.	½ oz.	2 drachms.	—
9 to 10 months	2 drachms.	1 oz.	3 ozs. whole grain cereals.	3 ozs.	Whole yolk.	1 oz.	1 oz.	½ oz.	—
10 to 11 months	2 drachms.	1 oz.	3 ozs.	3 ozs.	½ egg (cooked)	1 oz.	1 oz. (raw)	1 oz.	½ oz.
11 to 12 months	2 drachms.	1 oz.	3 ozs.	3 ozs.	Whole egg.	1½ ozs.	1 oz.	1 oz.	1 oz.

NOTES.—(1) Every alteration in quantity or quality must be made gradually over a period of several days.

(2) Quantities specified above are total daily quantities, not necessarily to be given all at one feed.

(3) Vegetables should be cooked with very little water and put through a strainer.

(4) The foods listed in this chart supply part of the baby's caloric requirements after six months. Not more than 30 ounces of milk should be given in the day.

(5) Orange juice should be diluted before it is given. Tomato or pineapple juice may be used instead.

(6) Give rusk or smooth bone to chew after teeth appear.

rate of three cubic centimetres per pound of body weight per hour.

Quite satisfactory results are obtained by feeding these babies on raw apple pulp (one to four table-spoonfuls every hour), provided they are not too dehydrated; but this method finds its greatest application in the more chronic cases, in which diarrhoea and not vomiting is the predominant symptom. Dried apple powder is just as efficacious, but less pleasant to take. Several preparations of pectin—the therapeutic principle of the apple—are on the market, and for the latest of these, a nickel-pectin compound, excellent results have been claimed. However, at its present price it will not be generally used.

The essential treatment in the recovery stage is to withhold fats for some days. These babies do best if led cautiously back to a milk diet by way of malted milk prepared with water, or with sweetened condensed milk, followed by "Eledon" or by skimmed milk.

The Blood Sedimentation Test.

One recent diagnostic method belongs more to the bedside than to the laboratory, namely, the estimation of the sedimentation rate of the red corpuscles. It is easily carried out, and although it seems rather empirical, we have come to rely on it for checking the activity of rheumatic infections. Perhaps a child is admitted to hospital with joint pains, a rapid pulse and a systolic murmur. With rest and salicylates his pains go and the pulse rate eventually becomes normal, the murmur persisting. When will it be safe to let him get up?

In cases like this, regular estimation of the sedimentation rate is of great assistance, and indeed gives better guidance than anything else. When the child seems well and has a normal sedimentation rate (about 10 millimetres in an hour), then his infection has come to an end. If, in spite of seeming well, he has an increased sedimentation rate (more than 15 millimetres per hour), then he has not recovered, and to disregard such a warning would be dangerous.

Osteomyelitis.

In the surgical wards you will always find patients with osteomyelitis, for these children are with us for a long time. There is as yet no means of cutting short the infection in the early stages, and we have been disappointed in "Uleron" and other sulphonamide preparations reported to be efficacious against staphylococci. None the less, the last ten years have seen some change in the treatment of osteomyelitis. Multiple drill holes in the bone have replaced the wide "gutter", and the torture of daily dressings and repacking of the open bone with antiseptic gauze, a week of which reduced the child to a haggard little wreck, is fortunately a thing of the past. The kinder modern method is to pack the wound loosely at the time of the operation with a bland oily dressing (such as gauze soaked in cod liver oil and "Vaseline"), encase the limb entirely in plaster and leave it alone,

changing the dressing only when its odour demands. Rigorous immobilization is, of course, one of the most effective means of combating infection.⁽⁵⁾

Meanwhile great attention is paid to the child's general health. The production of an ounce of pus a day drains his body of nucleic acids and high quality proteins, and he needs a liberal diet to offset this loss. Most of these children become anæmic and do much better if they can be given a blood transfusion whenever their hæmoglobin value falls below 70%.

Antiseptic Dressings.

Two years ago Garrod and Keynes⁽⁶⁾ published the results of much experimental work upon the efficacy of various antiseptics. From their paper it appears that a 1:1,000 aqueous solution of acriflavine is the most useful preparation for the sterilization of recent wounds. After excision of the edges of a laceration and removal of debris, acriflavine can be applied for a few hours as a wet dressing, and it may also be injected with a fine needle into the tissues around the wound. In this strength it is non-toxic, but not inactivated by blood serum, and yet permits motility of leucocytes. After such treatment the wound can be regarded as sterile, and may be sutured and confidently left alone. Lacerated wounds are very common in the surgical wards, and this is becoming our standard practice in such cases.

Established infections, in which bacteria are within and not merely on the surface of the tissues, present a different problem. The organisms are out of reach of antiseptics, and nothing must be used which would injure the granulation tissue, as this would provide a nidus for further bacterial growth. If such wounds are dirty, the familiar method of continuous irrigation with Dakin's solution is still the best, though more for its cleansing than for its bactericidal effects. Otherwise I think these wounds do better if covered with a crude cod liver oil dressing, which is at least non-irritating and promotes the growth of healthy granulations.

From experience I am in favour of disturbing such wounds as infrequently as possible, and for protection they can be enclosed in plaster. Daily dressings are not only unnecessary, but painful, and the psychological damage done to a child who is subjected day after day to painful dressings is not to be ignored.

The Treatment of Burns.

The tannic acid method of treating burns has been in general use for about eight years, and is now, I suppose, universally known. At the Hospital for Sick Children we started about eighteen months ago to use silver nitrate solution in conjunction with tannic acid, for the reason that it gave a thinner and more flexible coagulum and reduced the tendency to infection. Our routine method is as follows. As soon after admission to hospital as the patient's condition justifies it, he is anæsthetized and the burnt area is thoroughly cleaned with

etheral soap, perchloride of mercury, spirit and finally ether; a 5% tannic acid solution is dabbed on for a few minutes until a thin white coagulum forms on the surface, after which a 10% solution of silver nitrate is applied. This turns the coagulum black and rapidly dries. The treated area is kept uncovered and the patient is warmed by an electric cradle.

Quite recently Devine⁽⁷⁾ has recommended the use of an aqueous triple-dye solution, containing 1% gentian violet, 1% brilliant green and 0.1% neutral acriflavine. This mixture is inexpensive and keeps indefinitely, in contrast to tannic acid solutions, which deteriorate. It is powerfully antiseptic, and by reason of the gentian violet is a mild analgesic. Devine claims that it forms a more rapid and pliable coagulum than that produced by tannic acid. This is true; but the coagulum also tends to be less tough and durable, requiring frequent "touching up" with the solution during the first few days. We are using the triple-dye method extensively, none the less, its particular merit being that less vigorous preliminary cleaning is required, so that for small burns at least a general anaesthetic need not be given.

Cryptorchidism.

The treatment of undescended testicle has always been something of a problem, and the position has become more complicated if anything since the introduction of "Antuitrin S" therapy. One must decide, first, whether the testis is an imperfectly descended or an ectopic organ, or whether it is merely retracted into the inguinal canal; secondly, whether operation or hormone therapy should be adopted; and, thirdly, at what age such treatment should be undertaken.

Having decided that the testicles are indeed undescended, one need not be in too great a hurry to start treatment, for in approximately 60% of cases they will descend unaided into the scrotum at puberty.⁽⁹⁾⁽¹⁰⁾ In the second place, it seems logical to reserve hormone therapy until the boy is putting forth his own greatest endocrine effort—that is, until the beginning of puberty. It is a waste of expensive "Antuitrin S", to say the least, to give it to small children. Hormone therapy is also successful in about 60% of cases, and has its most spectacular results when cryptorchidism is associated with other evidence of hypogonadism. It is therefore well worth trying before surgery is resorted to, particularly in view of Bjerre's observation that atrophy of the testis occurred in 10% of 196 cases surgically "cured".⁽⁸⁾

A logical plan of campaign is as follows. Do nothing until the onset of puberty; then, if there is no descent of the testicle, give one or more courses of "Antuitrin S" injections (for example, 100 rat units three times a week for eight weeks); if this also fails, operate at once before the changes of puberty are too far advanced.

This is not the place to discuss the varieties of operation in vogue; but whichever type is performed, it is wise to give a further course of gonado-

tropic hormone subsequently, to encourage full development of the testes after they have been brought into the scrotum.

Infantile Paralysis.

What would strike you most forcibly in the children's orthopaedic wards today would be the number of beds still occupied by the victims of the last great outbreak of poliomyelitis. Orthopaedic surgeons in many parts of the world are passing through a stage of cautious experimentation in the treatment of this disease. After the grotesque deformities of a generation ago had demonstrated that neglect of a paralysed limb led to disaster, the Liverpool school taught that weakened muscles must be rested and relaxed. For years this teaching has dominated medical practice; but when rest is taken to mean rigid encasement in a plaster cast, the results are as bad as those of complete neglect. Obviously, treatment should combine rest with muscle reeducation and the maintenance of the nutrition of the limb.

Ten years ago we were taught to rest the limbs completely until all pain and tenderness had left them (a matter of about six weeks). Paralysed muscles had to be continuously supported by splints, lest their undamaged opponents pulled the limb into a position of deformity. In practice this meant that the child was kept motionless in a plaster bed or upon some sort of frame at all times except when undergoing muscle reeducation with the masseuse, and the limbs would often be completely motionless for forty-eight hours at a time.

Of recent years orthodox treatment has become a little less strict and more emphasis is now laid on preserving the nutrition of the limb; fomentations are often used in the early stages and warm baths later, and a certain amount of movement is sometimes permitted.

There is another school which holds that the loss of power in the early stages is of threefold origin: that it is due partly to direct damage to the anterior horn cells, partly to incoordination, whereby muscles and their antagonists contract together on attempted movement, and partly to "spasm" in certain muscle groups, particularly the calf muscles and the extensors of the spine. Treatment commences within two days of the onset and aims at overcoming muscular stiffness and incoordination by the use of hot fomentations and baths and by securing the child's cooperation in passive movements. Attempts at active movements follow as soon as relaxation has been obtained. Great attention is paid to maintaining good circulation in the limbs, and rest in bed in the "neutral" position takes the place of splinting, the slight movement that occurs without splints being considered an advantage rather than otherwise. Muscle reeducation is aimed at securing full movements at all joints, but the patient's attention is not fixed on individual muscles.

However, in spite of the difference between the theories held by this school and those generally taught, their actual methods of treatment differ

from orthodox practice in degree rather than in essentials. And, while authorities hold conflicting views on their relative merits, it must in fairness be admitted that the results in those cases in which treatment from the onset has been "unorthodox", are at least as good as in those in which treatment by traditional methods has been used.

Tonsillectomy.

Half the beds in the nose and throat wards are occupied by the candidates for and the survivors of tonsillectomy. It is often a difficult matter to decide, in any particular instance, whether a child's tonsils should be removed or not, and there are no hard and fast rules to make the decision easier. Recently there has been a welcome reaction against wholesale tonsillectomy in the United States of America, and one can detect it spreading further afield.

Too often a child is recommended for "removal of tonsils and adenoids" merely because his tonsils seem a good deal larger than our conception of what is normal. Worse still, the school nurse or even the mother notices large tonsils, and the child is brought to hospital, not because he is complaining of anything, but "to have his nose and throat done". Refusal brings genuine disappointment to the parents. Yet the child may be sturdy and well-nourished, and his tonsils are enlarged only because an organism is present to which immunity is required in the interests of his future health. Auto-immunization is progressing satisfactorily, and when it is complete the tonsils will shrink from enlarged succulent organs to the fibrosed and atrophied organs of the adult. We shall not go far wrong in declining to remove tonsils for enlargement alone.

On the other hand, there are plenty of children who really need tonsillectomy. Of these, children who have repeated sore throats, and those suffering from rheumatism or nephritis unresponsive to treatment and with enlarged glands present at the angle of the jaw, form the most important group. Not these, but the borderline cases, should cause physicians serious thought.

We cannot afford to neglect even the mortality of the operation. I have myself seen three children die directly from this cause. And, apart from this, can anyone deny that tonsillectomy is something of a gamble? In a large recent investigation Epstein⁽¹¹⁾ found that the results were particularly disappointing in children under six years of age, and recommended leaving the tonsils at least until the children were older. Finally, drastic reductions in the numbers of operations performed on elementary school children in certain parts of England have been followed by no ill effects.⁽¹²⁾ We should do well to keep these facts in mind.

Intranasal Medication.

Considering the variety of drops that are allowed to fall into the nostrils of unsuspecting children, a recent article⁽¹³⁾ on intranasal medication is most opportune.

The only suitable vehicles for medicaments are physiological saline or isotonic dextrose solutions. Stronger or weaker aqueous solutions interfere with ciliary activity. Oily drops in the nose remain separated from the epithelium by a blanket of mucus and quickly disappear into the pharynx. When used repeatedly there is some risk, particularly in babies, of lipoid pneumonia developing.⁽¹⁴⁾ Astringent drops and all antiseptics capable of destroying bacteria also damage the cilia and do more harm than good. The silver-protein preparations which are harmless, are also inert. Even a 1 in 1,000 solution of adrenaline causes immediate cessation of ciliary activity.

The writers conclude that nasal drops are of value only for producing vaso-constriction, and that for this purpose a 0.5% solution of ephedrine in normal saline is the only one that should be used, since this alone does not damage the cilia. Astringent and antiseptic drops should be abandoned altogether.

After this drastic "pruning", mention must be made of a simple method of treating nasal and sinus infection, first described by Leathart,⁽¹⁵⁾ which we have followed in the nose and throat clinics with good effect. The airway is kept as free as possible by the use of ephedrine drops, and a watery nasal discharge is maintained by the prescription of potassium iodide for three months in doses of one to five grains daily, according to the age of the child. Although such treatment merely provides good drainage for the nose, it is sufficient to effect a cure in a fair proportion of cases.

Incidentally it is often saves the necessity of removing adenoids. Not often, when a finger is passed into the naso-pharynx of an anaesthetized child, does one find an adenoid mass which actually blocks the posterior nasal aperture. Much more frequently so-called "post-nasal obstruction" is really due to rhinitis, with congested and hypertrophied turbinates, the airway being blocked in the nose and not behind it.⁽¹⁶⁾ This condition cannot be expected to clear up when the adenoids are removed. Yet how long will it be before we give up our routine scraping of the naso-pharynx at tonsil operations?

Conclusions.

And with this question our imaginary tour of the hospital is over. I, who must have taxed your patience, am reminded of Samuel Johnson, who would conclude one of his monologues with: "Sirs, we have had a good talk."

References.

- ⁽¹⁾ R. Hutchison: "Lectures on Diseases of Children", Seventh Edition, 1936, page 160.
- ⁽²⁾ R. H. Dennett: "Routine Use of the Vitamin B Factor in Infant Feeding", *The Journal of the American Medical Association*, Volume XCII, March 9, 1929, page 769.
- ⁽³⁾ E. Svensgaard: "Medical Treatment of Congenital Pyloric Stenosis", *Archives of Disease in Childhood*, Volume X, December, 1935, page 443.
- ⁽⁴⁾ J. V. Braithwaite: "Antispasmodics in Infantile Pyloric Stenosis", *The British Medical Journal*, Volume I, February 12, 1938, page 324.
- ⁽⁵⁾ J. Trueta: "Treatment of War Fractures by the Closed Method", *The British Medical Journal*, Volume II, December 2, 1939, page 1073.

⁽⁶⁰⁾ L. P. Garrod and G. L. Keynes: "The Use and Abuse of Antiseptics, II", *The British Medical Journal*, Volume II, December 25, 1937, page 1286.

⁽⁷⁾ J. B. Devine: "The Three-Dye Treatment of Burns", *THE MEDICAL JOURNAL OF AUSTRALIA*, Volume I, June 24, 1939, page 924.

⁽⁸⁾ H. Bjerre: "Indications for Treatment in Cryptorchidism", *Ugeskrift for Læger*, Volume XCIX, May, 1937, page 513; abstracted in *The British Medical Journal*, Volume II, July 3, 1937.

⁽⁹⁾ W. W. Johnson: "Cryptorchidism", *The Journal of the American Medical Association*, Volume CXIII, July 1, 1939, page 25.

⁽¹⁰⁾ L. Dods: "Some Aspects of Paediatric Endocrinology", *THE MEDICAL JOURNAL OF AUSTRALIA*, Volume II, August 14, 1937, page 255.

⁽¹¹⁾ I. M. Epstein: "Factors Influencing Results of Tonsillectomy and Adenoidectomy", *American Journal of Diseases of Children*, Volume XXXI, June, 1937, page 1503.

⁽¹²⁾ J. A. Glover: "Incidence of Tonsillectomy in School Children", *Proceedings of the Royal Society of Medicine*, Volume XXXI, August, 1938, page 1219.

⁽¹³⁾ T. E. Walsh and P. R. Cannon: "The Problem of Intranasal Medication", *Annals of Otolaryngology and Rhinology*, Volume XLVII, September, 1938, page 579.

⁽¹⁴⁾ H. S. Bromer and I. J. Wolman: "Lipoid Pneumonia in Infants and Children", *Radiology*, Volume XXXII, January, 1939, page 1.

⁽¹⁵⁾ P. W. Leathart: "The Biological Significance of the Tonsils and Adenoids", *The British Medical Journal*, Volume II, October 22, 1938, page 835.

⁽¹⁶⁾ J. Crooks: "Nasal Sinusitis in Childhood", *The British Medical Journal*, Volume I, April 30, 1938, page 935.

THE SECONDARY PENAL STATIONS OF OLD VAN DIEMEN'S LAND.¹

By W. H. HUDSPETH, B.A.,
Hobart.

I PROPOSE tonight to limit my remarks to the three secondary penal stations of old Van Diemen's Land—Macquarie Harbour, Maria Island and Port Arthur.

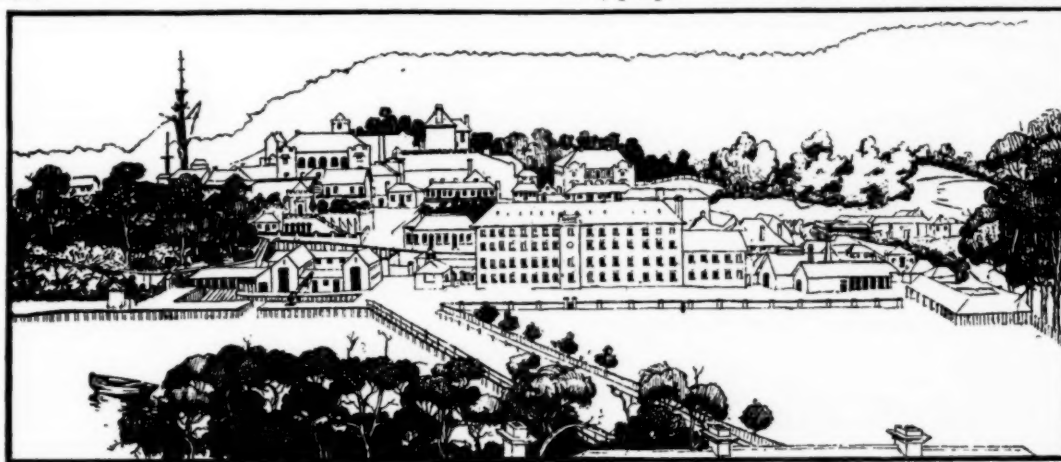


FIGURE I.
Port Arthur, circa 1850. (From a drawing in the possession of the Public Works Department, Hobart.)

Actually, as you know, the whole island was a penal station, and when Colonel William Sorell took office as Lieutenant-Governor in 1817 he found a most unsatisfactory state of affairs prevailing. There were practically no order, no discipline and no classification in the penal system, convicts of all

classes and grades mixing freely with the general population. It was urgently necessary to segregate the worst types of criminals and to provide some place where the degenerate and the twice-convicted could be safely confined.

Many people think that all convicts transported to Van Diemen's Land were sent to Port Arthur or one of the other secondary stations. This is quite wrong. Macquarie Harbour, Maria Island and Port Arthur were places of punishment for those who had committed offences after transportation or who were for various reasons unfitted to mix with the population of the settled districts. Probably not one in ten, or perhaps not one in twelve, of the 70,000 odd transported prisoners ever saw the inside of a secondary station. It was the worst characters who were sent there, and they were sent chiefly for punishment. It was only to be expected, therefore, that discipline at the stations had to be severe. But, severe as it undoubtedly was, it was probably no worse than that practised in the navy and army of that time. I doubt whether Port Arthur ever saw anything worse than the keel-hauling or flogging through the fleet that was practised in the navy. John Masefield, in his "Sea Life in Nelson's Time", has given us a description by an eye-witness of flogging in the Navy, which is quite as gruesome as anything I have ever read about the terrible triangles in Tasmania. Even the dreaded silent or "model" prison of Port Arthur had its prototype at Pentonville in England and in the prisons of America, as Charles Dickens has told us. At any rate, people who tolerated the treatment meted out

to soldiers and sailors and to workers in the factories and industrial centres of the "Merrie England" of those days cannot afford to throw stones at Van Diemen's Land.

Macquarie Harbour.

But to come back to Governor Sorell. Some two years before his arrival Captain James Kelly had

¹Lecture delivered before the Royal Australasian College of Surgeons on November 18, 1939, at Hobart.

discovered Macquarie Harbour, a large inlet on the west coast, which Sorell thought would make an ideal place for a secondary penal station. It was right away from the settled districts, and the rugged nature of the surrounding country made escape by land practically impossible, while "Hell's Gates", the narrow entrance to the harbour, with its bar and dangerous tide rip, offered very little hope of getting away by sea. So Sorell decided to make his experiment there. The first shipload of convicts was sent round in 1822, and an establishment was set up on three small islands far up the harbour, about twenty miles from its entrance. They were called Sarah Island, Grunnet Island and Phillip Island. Sarah Island was the main settlement, and

severe, being done with a double cat-o'-nine-tails. It is recorded that in 1823, when there were about 230 convicts at the station, over 9,000 lashes were administered. No wonder that attempts to escape were frequent and that murders were often committed in the hope of getting away, even if the escapee were only to be hanged at Hobart Town. During the eleven years of the existence of the station something like 116 prisoners absconded, and of these only five escaped an untimely end, the rest being recaptured, or dying of starvation, or being murdered and eaten by their mates. The station was closed down in 1833, its buildings and their fittings were removed, and all the inmates were transferred to Port Arthur.



FIGURE II.

Main Street at Port Arthur. (From a water-colour, dated 1841, by Captain Stanley, R.N., in the possession of the Royal Society of Tasmania.)

on it were built a penitentiary, a gaol, workshops, military barracks, quarters for the commandant and other officers, and dockyards and slipyards for shipbuilding. James Backhouse, who visited the station in the early thirties, described the island as looking like a fortress. Grunnet Island, reserved at first for female prisoners, was afterwards used for refractory prisoners. Phillip Island was used chiefly for growing vegetables.

Conditions at the harbour were very hard. The prisoners were kept at incessant and arduous labour, chiefly cutting down and hauling logs of Huon pine for shipbuilding, which was the principal industry. Their food was scanty and punishment was freely inflicted. Flogging was extremely

Maria Island.

Maria Island station was a mild affair compared with Macquarie Harbour. It was established by Lieutenant-Governor Arthur in 1825 as a secondary station for prisoners convicted of minor offences. It was not a great success, being too near the mainland and offering too many opportunities for escape; but there was quite a large community there, and a number of useful industries, such as boot-making and weaving, were carried on and produced a considerable revenue. Dr. Thomas Coke Brownell has left us an interesting picture of life there in the twenties. When Port Arthur was established the station on Maria Island was closed down and its inmates were transferred to the new station.

Port Arthur.

In 1824 Lieutenant-Governor Colonel George Arthur arrived in Tasmania, with instructions to tighten up and reorganize the penal system, and set about his task with characteristic energy and thoroughness. He soon realized the disadvantages of having two secondary stations at opposite sides of the island, and resolved, if he could find a suitable place, to centralize the control of refractory prisoners in one station for the whole island. He had heard of the timber resources of Tasman Peninsula, and in 1827 sent down Captain Welsh to report on the prospects of establishing there a sawmilling industry. Welsh reported that there was not only plenty of timber, but also a safe and

Russell, Dr. Brownell, Dr. Ewing, Dr. Agnew, Dr. Huston, Dr. Benson, Dr. Eckford, Dr. Seccombe and Dr. Coverdale. On the peninsula the work of the medical officer was extremely varied and laborious, and the remuneration was very low according to present-day standards. Dr. Brownell recorded that, in 1842, 13,000 cases had been dealt with and that he had to supervise and check the accounts of three subordinate medical officers, as well as attend to his own duties. One of the most unpleasant jobs of the medical officer was to attend all floggings.

In the Arthurian inferno there were seven circles or grades of classification, and in the lowest of



FIGURE III.

Eagle Hawk Neck, Tasman's Peninsula. (From a water-colour, dated 1841, by Captain Stanley, R.N., in the possession of the Royal Society of Tasmania.)

commodious harbour and that the bay at its north-western end would make an admirable site for a secondary penal station. In compliment to his chief he suggested that it be called "Port Arthur".

In 1830 a party of convict sawyers were sent down with a military guard and set up their tents in Russell Bay, called after Dr. Russell, who accompanied the party and soon after became commandant.

It is of special interest at this gathering to recall the important part played by the medical profession in the working of the penal system. A long procession of medical officers flits across the stage as the drama unfolds, among them such names as Dr.

these dwelt the unfortunates who were doomed to Port Arthur. There were five classes of criminals sent there: (i) convicts transported there direct from England for atrocious crimes, (ii) convicts who had misbehaved on the voyage out, (iii) convicts sentenced in Tasmania after their arrival, (iv) boys, and (v) educated or "gentlemen" convicts. Among the so-called "gentlemen" convicts at Port Arthur was that sinister and mysterious personality Thomas Griffiths Wainewright, who, I suppose, would nowadays be classed as a schizophrenic. He combined the gentle arts of poisoning and forging with those of literary dilettantism and art. While serving his sentence in Tasmania he

painted many portraits, some of which are on exhibition in the gallery upstairs.

Discipline at the station was very severe, the slightest infringement of the regulations being punished with the lash. The inmates worked from daylight to dark in silence, often in chains. They were clothed in yellow branded with the broad arrow; members of chain gangs also had the word "felon" branded on their clothing.

The station was inhabited solely by male convicts and their guards, no women being allowed, except wives of officers and their domestic servants. The whole place was designed to produce terror, not only in the inmates, but also in those outside. It was described by a witness before the House of Commons Committee in 1837-1838 as "a school for eliciting and perfecting immoral propensities and

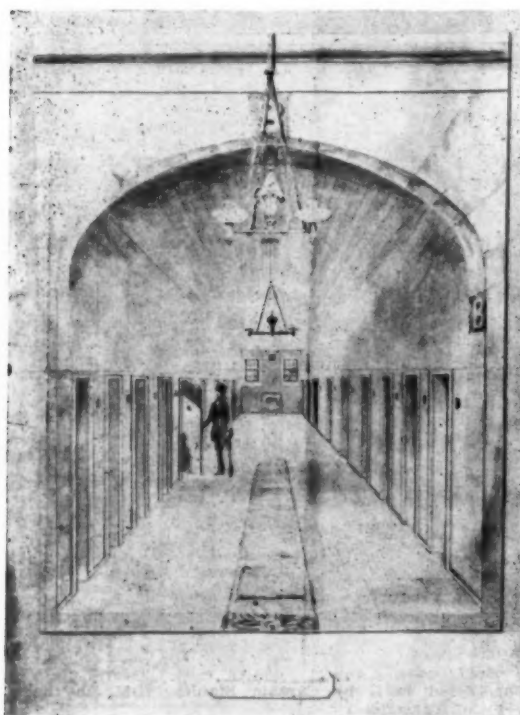


FIGURE IV.

Corridor B of the Silent Prison, Port Arthur, from the central hall. From a sketch in the possession of the Royal Society of Tasmania.

depraved habits", and the treatment there hardened rather than reformed. During the fifty years of its existence there is very little evidence of any reformation among its inmates. As was said of Norfolk Island: "A man's heart was taken from him and there was given him instead the heart of a beast."

In 1833 there arrived in Hobart, on board the *Gloriana*, a convict transport, a man whose name will always be associated with Port Arthur, Captain Charles O'Hara Booth, of the 21st Fusiliers.

He was on the look-out for a job and called at Government House to pay his respects. Arthur liked his looks and offered him the post of commandant at Port Arthur, recently vacated by Dr. Russell. Booth accepted with alacrity and went down in high spirits to the peninsula, where he stayed for eleven years. If Arthur was the founder of Port Arthur, Booth may be regarded as its maker. He laid out the place, made roads and erected many of the chief buildings. He invented the elaborate system of semaphores for the transmission of messages to and from Hobart, built the tramway between Norfolk Bay and Long Bay, and established the station for boys at Point Puer. Beside the supervision and organization of the settlement at Port Arthur itself, with its multifarious industries, his duties involved long and tiring journeys of inspection to all the subsidiary stations on Tasman and Forestier Peninsulas—at the coal mines, Saltwater River, Impression Bay and Cascades. His youthful high spirits evaporated, as his journal shows, under the strain, and in 1844 he resigned his post, worn out in both mind and body.

After New South Wales closed her doors to transportation in 1840 the influx of criminals to Tasmania largely increased; but there were never more than about 4,000 at any one time on the Peninsula, and of these not more than 1,000 were stationed at Port Arthur. After 1853, when transportation ceased, the numbers at the station gradually dwindled, and in 1877 it was finally closed down and the few inmates left there were removed to the jail at Hobart.

Conclusion.

Anthony Trollope, the well-known English novelist, who visited the station in its closing years, prophesied that the buildings there would fall into the dust and that men would make excursions there to see the strange ruins. His forecast has proved only too true. Today, as you wander among fallen bricks and masonry, where Nature and man seem to have conspired together to obliterate all traces of the hated penal system, you feel as if you were moving in a cemetery, oppressed by armies of ghosts, by hosts of memories, and seem to hear faint echoes of clanking chains and cracking whips. Brambles and briars, bush fires and neglect, have done their deadly work, and the tourists who flock there in thousands find little left of what was once described as a "neat, well-kept, English-looking village". Only recently have the authorities been awakened to the importance of preserving what remains, and steps are now being taken to maintain, if not to restore, such of the buildings as have escaped destruction. But it is too late. The Port Arthur of Denison's time was doomed when the opponents of transportation triumphed. Like Cato of old, they raised the cry, "*Delenda est Carthago*", and, like Carthage, Port Arthur has perished in the flames of their bitter hostility.

Reviews.

CLASSIC DESCRIPTIONS OF DISEASE.

THE appearance of the second and revised edition of Dr. Major's "Classic Descriptions of Disease" provides the doctor, medical student and medical historian with a valuable aid in their studies.¹ No longer need they search through ancient books and out-of-date journals when they wish to read how the clinical observers of the past first described the many diseases whose names are now so familiar to us. The seeker after historical data has only to turn to the various sections of this book and there he will find excellent translations of the original authorities accompanied by biographical accounts of their authors, and in many cases portraits of the medical men concerned.

The introduction to our series of original clinical descriptions is very suitably supplied by a translation of several passages from the "Prognostics of Hippocrates", in which may be read the immortal description of the "Hippocratic facies", a description which every medical student should learn by heart.

We then pass on to a section on infectious diseases. Here the explanation given by Hieronymus Fracastorius, of Verona, in 1483 makes us realize how close this medical poet came to expressing the modern conception of bacterial infections. Fracastorius, by the way, had a most remarkable infancy. He was born with such a small mouth that it was necessary to enlarge it surgically so that the infant could nurse, and one day, while he was in the arms of his mother, she was struck by a thunderbolt and killed, while the infant was unharmed.

The section of early writers on syphilis, that new and strange disease which "Confounded the Physicians like Men amazed", makes most interesting reading, and one obtains a vivid picture of the variety and diversity of the symptoms and the almost universal incidence of this new disease. Interesting accounts of the medical men who strove so valiantly to find a cause and a cure for

... a pestilence ne'er to be found at all

In verse or prose, in science or in story,

So evil and perverse and cruel past control.

to quote the poem of Francisco Lopez, of Villalobos, the Spaniard.

Passing by the works of John of Vigo, Ulrich von Hutten, whose faith in the healing properties of guaiac resin was so great that he believed himself cured by his own concoctions, we come to a simple soul, whose faith in the priesthood was so blind that he could not conceive of venereal disease in priests being caused in the same way as in other men, but ascribed the infection in their case to the influence and corruption of the air.

We pass to modern times and find the original account given by John Hunter of his unfortunate inoculation in 1767, which ultimately caused his death in 1793. This section closes with Jonathan Hutchinson's description of a certain deformity of the teeth characteristic of hereditary syphilis.

Sections on tuberculosis and plague come next, and we renew our acquaintance with the vivid account of the plague in London given by Daniel Defoe in his "Journal of the Plague Year", a description so vivid that Dr. Richard Mead believed it to be that of an eye-witness; but Defoe was only four years old in 1665. Malaria, yellow fever, diphtheria, typhus, to mention only a few of the many diseases, can be all read in their earliest descriptions. We find even the modern American doctrine of "focal infection", which is not so modern after all, having been described in 1801 by Benjamin Rush, who cured a lady patient of rheumatism of the hip by extracting a few decayed molars.

Diseases of the circulatory system follow, and we read that a German physician, Marcus Gerbezius, first noticed and recorded the slow pulse in a case of heart block in 1718, to be followed by Morgagni's celebrated cases of "epilepsy with a slow pulse". Thomas Spens, of Edinburgh, anticipated Robert Adams by forty-eight years, and Stokes by fifty-three years. Under "Diseases of the Blood" we find George R. Minot's account of his investigations which led to the discovery, in collaboration with William P. Murphy, of the beneficial effects of liver in pernicious anæmia.

Kidney, respiratory, digestive, deficiency and allergic diseases all receive due consideration, and finally much may be learned about the history of appendicitis in the clinical histories taken from the works of Heister, Mestivier, Parkinson and Fitz.

Mestivier in 1757 performed a *post mortem* examination on a patient who had died after a surgeon had opened an abscess in the right side of the abdomen, and found a large pin embedded in the vermiform appendix. James Parkinson, whose fame nowadays rests on his "Essay on Shaking Palsy", gave in 1816 one of the classic accounts of a case of acute appendicitis. Finally, we have the work of Reginald Fitz, who, in an address in 1886 to the first meeting of the Association of American Physicians, described perforative appendicitis and established it as a definite clinical entity. Fitz gave the condition the name of appendicitis, proved its origin in the appendix, pointed out its characteristic diagnostic features and indicated the necessary surgical treatment.

This book throughout its seven hundred pages is full of the greatest interest. It should be in every medical library, and every lecturer in clinical medicine should have it close at hand, so that the members of his class could refer to it at will. By this method medical history would become a living subject and the great medical men of the past become well known to the modern student.

The book is beautifully produced and the illustrations include title pages of rare books and pamphlets and many portraits of medical men which cannot be found in the ordinary histories of medicine.

RADIOLOGICAL DIAGNOSIS.

THE third volume of this work, "A Text-Book of X Ray Diagnosis", by British authors and edited by S. Cochran Shanks, Peter Kerley and E. W. Twining, has been published.¹ The previous two volumes were reviewed in this journal on September 17, 1935. The present volume and the whole work must be looked upon as the most valuable textbook on radiological diagnosis that has yet appeared. The arrangement of the various chapters is orderly and the descriptions of normal and pathological conditions of the neurological and skeletal systems are clear and lucid. The illustrations are representative and well reproduced. A valuable bibliography accompanies each section. The section on neurological and cranial positions in the demonstration of various lesions is stressed. Such difficult procedures as ventriculography and arteriography (by the use of "Thorotrast") are explained most clearly and at length. The modern work on extrusion of the intervertebral disk and its demonstration by air injection is well covered and the possibility of error in cases of thickening of the *ligamenta flava* is pointed out. Sinus and mastoid disease and pathological conditions of the petrous temporal bone are dealt with, and the necessity of exact technique (especially with the patient in the vertical position) in anterior sinus work is again stressed. Fluid levels in the antra are revealed when the patient is in the vertical position which do not show when he is prone. The fluid level also can be varied by tilting

¹ "Classic Descriptions of Disease, with Biographical Sketches of the Authors", by R. H. Major, M.D.; Second Edition; 1939. London: Baillière, Tindall and Cox; Baltimore: C. C. Thomas. Royal 8vo, pp. 757, with illustrations. Price: 27s. net.

¹ "A Text-Book of X Ray Diagnosis", by British authors, edited by S. C. Shanks, M.D., M.R.C.P., F.F.R., P. Kerley, M.D., M.R.C.P., F.F.R., D.M.R.E., and E. W. Twining, M.R.C.S., M.R.C.P., F.F.R., D.M.R.E.; Volume III; 1939. London: H. K. Lewis and Company Limited. Crown 4to, pp. 814, with 710 illustrations. Price: 63s. net.

the patient. In skeletal work the authors insist on a thorough knowledge of the normal before abnormal conditions can be reported upon. Views at right angles are necessary in regions where these can be taken, otherwise stereoscopy should be used; examination of the corresponding joint is also valuable for comparison. The authors consider fluoroscopy to be of no value except in the manipulation of fractures. In this section the description of the normal is most educative, and clear tables of ossification times and epiphyseal fusion should prove most valuable for reference. It is interesting to learn that recent work shows the vertebral body developing from multiple centres and not from a single centre as usually taught.

In the section on bone pathology, a general description is given rather than a detailed one of individual conditions. The authors point out that the hypocalcification in rickets and osteomalacia is due to a defect in calcification of new bone formed and not to an abstraction of calcium from the bones; also that the apparent density of a sequestrum is due partly to a surrounding porosity and not to increase in calcium and partly to a condensation of the bone elements in the part. Much new matter is included in the sections on inflammation and bone tumours and on the effects of blood supply on bone deposition and absorption. Congenital deformities are well illustrated. Bony union, sufficiently strong for function, is generally present long before the film shows complete regeneration. The unusual lesion of "slipped" femoral epiphysis is discussed in relation to its differential diagnosis from tuberculosis.

Tuberculosis, syphilis, hydatid and rarer diseases are described and illustrated; in the case of hydatid disease it is pointed out that there is no characteristic appearance. Static deformities are dealt with in a separate section, and this should prove of great value to the orthopaedic surgeon as well as to the radiologist. The volume ends with a discussion of bone cysts and tumours, various dental conditions, localization of foreign bodies and abnormalities of the soft tissues. This work and the two preceding volumes should be in the library of all radiologists for frequent reference.

TUBERCULOSIS OF THE UPPER PORTION OF THE RESPIRATORY TRACT.

WHEN a book on any aspect of medical practice is being considered the first features to be noted are the name of the author and the title of the book. F. C. Ormerod is known as a man of standing in his particular branch of the medical profession, and his writings are always worthy of perusal. The title of his work, "Tuberculosis of the Upper Respiratory Tracts",¹ however, is incomplete, for, as stated in the preface, "all the offshoots of the upper air and food passages were included to make up a comprehensive survey of the complications of pulmonary phthisis", including the oesophagus, nose and ear.

On turning over the pages one is immediately struck by the wealth of original illustrations, beautifully coloured and instructive drawings, photographs of macroscopic and microscopic specimens. The subject matter is based upon the author's extensive experience in the throat and ear department of the Brompton Hospital for Consumption and Diseases of the Chest; but very wide references to and quotations from the literature are made, the various features of the disease and its treatment are viewed from diverse aspects and the evidence is carefully weighed in the drawing of the author's personal conclusions.

It is difficult to criticize this work. Whilst reading it one is constantly tempted to make extracts for quotation, for the book is "full of meat". The question of association between Vincent's angina and tuberculosis of the pharynx

and larynx is of importance and is an unfortunate omission. Nevertheless the chapter on aetiology, pathology and clinical features deserves special mention.

The treatment by various methods is carefully discussed, with the exception that, if three lines on page 135 are excluded, there is no consideration of the use of tuberculin. The use of tuberculin in treatment as well as in diagnosis has undoubtedly been of benefit in the hands of some, although it must be admitted that the use of tuberculin is not only a science but also an art that is not easy of attainment.

General and surgical methods, galvano-cautery, diathermy, X ray, radium, light therapy, gold, Jacobson's solution, and other agents in treatment are comprehensively discussed. The importance and occasional difficulty of diagnosis between early laryngeal tuberculosis and catarrhal conditions are stressed.

A study of this book, although the fact is not specially mentioned therein, teaches the necessity for repeated examinations of the larynx *et cetera* in all cases of pulmonary tuberculosis. Another good characteristic of this volume is that it is not only very instructive but is a stimulus to the reader to think for himself. In the whole of this excellently arranged and produced work there is but one serious literary lapse, and this is indeed worthy of quotation: "The vocal process of the Arytenoid Cartilage . . . forms a projection from the main mass of the Arytenoid process and this projection is often known as the vocal process."

Although allegedly written for "those physicians who are concerned with tuberculosis of the lungs" and "laryngologists who do not have the opportunity of seeing the large number of patients with tuberculosis disease who attend the Ear and Throat Department of a special chest hospital", the subject matter is of such importance and is presented in such a lucid and thorough manner that the book is well worthy of study by all who practise any branch of medicine.

THE CARE OF NEURO-SURGICAL PATIENTS IN HOSPITAL.

"THE HOSPITAL CARE OF NEUROSURGICAL PATIENTS", by Dr. Wallace H. B. Hamby, contains much information which should be of service to house surgeons and nurses who are called upon to serve in their respective roles in a neuro-surgical "team".¹ In a small work of 118 pages it is, of course, possible to deal but briefly with the numerous subjects, which range over a large field; and sometimes, as in the section on anatomy, this brevity leads rather to obscurity. There is much evidence of carelessness in the actual text, and as, on page 4, a plea is made for the use of good English and the avoidance of slang and jargon in note-taking, this is all the more unfortunate. On the very first page one comes across "thru" and "checkup", and such sentences as this (page 47): "The tube of catgut now is broke, a strand grasped by the hemostat and is pulled through under the vein", are not infrequently to be found. On page 62 "gaserian" (*sic*) appears, and on page 22 a reference is made to "hypo needles". In a section devoted to encephalography the author states that his custom is to remove cerebro-spinal fluid down to the level of the fourth dorsal vertebral spine; but he does not say how he arrives at this end result. On page 62 the term "preganglionic fiber" is applied to the centrally going processes of the cells of the Gasserian ganglion.

Despite numerous lapses, the author has managed to include a good deal of information, and the book should prove to be useful. A thorough overhauling should be undertaken before another edition is launched.

¹ "Tuberculosis of the Upper Respiratory Tracts", by F. C. Ormerod, M.D., F.R.C.S.; 1939. London: John Bale Medical Publications Limited. Demy 8vo, pp. 223, with illustrations. Price: 21s. net.

¹ "The Hospital Care of Neurosurgical Patients", by W. B. Hamby, M.D., F.A.C.S.; 1939. Baltimore: C. C. Thomas. Demy 8vo, pp. 129, with illustrations. Price: \$2.00 net.

The Medical Journal of Australia

SATURDAY, MAY 11, 1940.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given without abbreviation: Initials of author, surname of author, full title of article, name of journal, volume, full date (month, day and year), number of the first page of the article. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

THE AUSTRALIAN IMPERIAL FORCE AND ITS MEDICAL OFFICERS.

THOSE members of the community who look on war as a grand adventure are without doubt in the minority. In the olden days the outlook was possibly different, though war always has been and always will be horrible. Most democratic people, believing as they do in the freedom of the individual, shrink from war and are prepared to embark on it only when all other means for the settlement of differences have been exhausted, or when, as in the present instance, they are faced with the alternative of having to fight or else of having to give up all personal freedom and of being forced to submit to a brutal tyranny that would be worse than a living death. The opposing forces in present-day warfare include every person in the communities at war, and among its methods must be numbered every military and economic measure that will hamper the activity of the enemy and make him incapable of further conflict. Although every person in the community must be looked on as a unit in the force opposing the enemy, active service in fighting forces demands strength, audacity and endurance, and so it happens that the nation has to rely on its young men, its youth. The call to youth at the present

time is clearer and more insistent than it has been in living memory.

On February 27, 1940, Lord Halifax addressed a crowded audience at Oxford in the dual capacity of Foreign Secretary and Chancellor of the University. His speech was published in *The Times* of February 28. He quoted words of Lord Grey in 1914: "The lamps are going out all over Europe; we shall not see them lit again in our lifetime"; and he added that the similarity between 1914 and the present time was striking. He contrasted the atmosphere of 1914 with that of 1939. The people of 1914 had been born and had grown up in an atmosphere of peace. Now people knew what war meant and faced it with set determination. The existence of war in Europe was a sign of failure, or of something more than failure, in Western civilization. Lord Halifax continued:

When I consider that we—who hate war—are driven to the use of force; that you are asked to be the instruments of this force in maintaining against bitter and evil attack the first principles upon which European life has hitherto been based, the darkness that hangs over Europe seems to me something which Milton might have described as darkness visible.

European civilization had not been brought to its present pass, he went on, merely by the mistakes, the pride and the selfishness of an older generation. The real conflict was not between age and youth, but between youth and youth. This, Lord Halifax insisted, was the kernel of future problems. He saw something sinister in the acceptance by the growing generations in different countries of standards of conduct in sharp contradiction to one another—this constituted a terrifying challenge to the very foundations of human thought and action. The world had been influenced by "the inhuman conception of the so-called economic man". There had been a tendency for great thinkers who had analysed the social and moral values on which the human community had been built, to stress the need for finding the perfect system. This emphasis on the ideal system, instead of the ideal individual, had not helped the development of the human character. No country could be at peace with itself or with others unless it was based firmly on social, moral and religious standards. If, therefore,

the secret of order for international society was to be recaptured (this, he declared, applied to all countries), individuals would need to strive to erect or maintain standards that would bring true freedom through the way of discipline. At the same time Lord Halifax thought that there was no reason to be disillusioned about the future, however much they might feel disillusioned about the past—hope was the oldest and wisest counsellor of mankind. The racial doctrine, as interpreted in the Nazi creed, might be, and in Lord Halifax's opinion was, sheer primitive nonsense. If that were all, it would not greatly matter; but when that doctrine was invoked in justification of the oppression of other races, it became a crime against humanity.

Not only does it deny the corporate claim to liberty of men and women organized in national societies, but it refuses the much more fundamental claim of men and women to the free expression of human personality, which rests upon the eternal value of every human soul. True pride of race may be tested by the behaviour of its possessors towards their own fellow citizens and towards others. It will forbid conduct to individuals of which they should be ashamed in their private lives. It is thus evidently something far removed from the ideal of a race which by the German philosophy of today is called to stamp out the civilization of another. Between these two conceptions there is a great gulf fixed. The German race, under its present rulers, is betraying both itself and the greater whole of which it is part, and to whose progress it might, and ought to, be making its own distinctive contribution. And the real tragedy of that betrayal, as it affects the German youth, is the enlistment of the honourable instincts of self-sacrifice and devotion in the service of a crudely materialist philosophy. Until these false creeds are abjured, and replaced by a wider toleration, they must continue to excite resistance. The future of humanity must not be left in the hands of those who would imprison and enslave it.

The message with which Lord Halifax concluded his address to the youth of Oxford, and through them to the youth of the Empire, was that they were to be so proud of the race to which they belonged, that they would be as jealous of its honour as they were of its safety, and that they would fight for both with equal determination. He ended by quoting the following words, which are engraved on a column in front of the Viceroy's house at New Delhi: "In Thought Faith, In Word Wisdom, In Deed Courage, In Life Service. So may India be great." For the word "India" we may in the present discussion substitute "humanity".

Lord Halifax, it must be remembered, was addressing the youth of an ancient and honourable university in a country that has adopted conscription. These young men will in the ordinary course of events be called upon to serve their country; they will have no choice in the matter, and yet Lord Halifax, their Chancellor, in his wisdom addresses to them words of exhortation to service. With what greater advantage may they be addressed to intelligent young Australians who have no compulsion to serve abroad? Though this journal has no direct concern with recruiting for the fighting ranks of the Australian Imperial Force, it is gravely concerned with the supply of officers for the Australian Army Medical Corps. In a recent review in these pages of the second volume of "The Australian Army Medical Services in the War of 1914-1918" it was shown beyond any doubt that the efficiency of an army in the field is largely dependent on the efficiency of its medical services, and that the Australian Army Medical Corps did in actual fact take no small part in promoting the efficiency of the Australian forces in France, particularly in the later stages of the conflict, just before the armistice was signed. Though the members of the second Australian Imperial Force are doubtless imbued with the same spirit as that which was characteristic of the "diggers" of the last war, they have yet, if we may use the term, to prove their right to succession. All Australians hope and believe that they will; but this will be impossible for them unless they are served by a medical service, efficient and complete in every detail. The medical units that have left these shores recently have been staffed by suitable and competent men. It is noticeable, however, that the proportion of younger practitioners who are offering their services is much smaller than it was in the last war. From several large teaching hospitals not one resident medical officer has volunteered for service. At a meeting of the New South Wales Branch of the British Medical Association in Sydney last December, Major-General R. M. Downes, the Director-General of Medical Services, said that in 1914 80% of the men who went away were under thirty-six years of age and that in the Sixth Division

at that time only 50% were under that age. At the present time, of 418 volunteers for service, 62 are under thirty years of age. This number sounds quite satisfactory, but it has to be remembered that efficiency will best be served not if positions are filled by any applicant, but if the most suitable person is chosen. We are also informed that if a call is made for more hospitals there is likely to be difficulty in filling the senior positions, particularly in some of the smaller specialties. But it is not for senior men that these words have been written so much as for the younger graduates, men comparable with those whom Lord Halifax addressed at Oxford. Voluntary enrolment is a matter for each man's conscience; and in the making of a decision, thoughts such as those expressed by Lord Halifax should find a place.

Current Comment.

THE TUBERCULOUS TEACHER.

THE medical profession in this country is fully aware of the danger to the health of children attendant on intimate association with persons suffering from pulmonary tuberculosis. Practically all tuberculosis of childhood is contracted from close contact with adults who have the disease in an open form, while the seeds of tuberculosis in later life are more often than not sown in early years in the same way. Hence the several State health authorities, which do all they can to promote the periodical medical examination of the children and of the brothers and sisters of sufferers from tuberculosis, are engaged in one of the most fruitful fields of preventive medicine and daily pluck brands from the burning. Admittedly all that is done is to endeavour to prevent the development of serious disease after infection with the tubercle bacillus has occurred; it is usually impossible and may be undesirable so to disrupt the home that the passage of germs from parent to child cannot occur. However, the protection of children from tuberculous adults is not solely a domestic matter, as has recently been pointed out in a paper read to the American Academy of Pediatrics by F. Hall;¹ there is an appreciable danger to children from the tuberculous school teacher, and he summarizes the literature on this subject.

In 1939 P. T. Y. Ch'ui, J. A. Myers and C. A. Stewart traced a large number of children who had been infected with the tubercle bacillus as shown by a reaction to tuberculin before the age of seven

years, and found that the number who subsequently developed the reinfection type of tuberculosis was nine times greater than among children in a control group who were non-reactors to tuberculin at the same age. Let us ask, therefore, whether children have been known to become reactors to tuberculin from their association with a teacher. In 1930 H. Dietrich reported the case of a kindergarten teacher with consumption, several of whose pupils had primary tuberculosis. In 1936 L. S. Jordan reported that of sixty-four pupils of a teacher with open tuberculosis 42.6% reacted to the Mantoux test, while of 161 other pupils of the same age group in the same school only 11.2% reacted. It may be suggested that these are exceptional cases. In 1935 D. O. N. Lindberg found that of 705 school teachers who were examined by X rays in the State of Illinois, nine suffered from active tuberculosis; and in 1936 H. D. Lees recorded that of 6,066 school teachers examined in various parts of the United States, 2.15% had tuberculosis in a stage requiring treatment. In this country it is probable that little less than 0.7% of school teachers are actively tuberculous, if no greater proportion of them are affected than among the soldiers of the Australian Imperial Force who had been passed as medically fit and were recently subjected to a radiographic examination *en masse*. Tuberculous school teachers must in fact be numerous, and each one is "a reservoir of infection".

There is an obvious need to "save the children". An unhappy example of misapplied energy in this direction is at present to be seen at Randwick, New South Wales, where some of the inhabitants have objected strongly through the Press and their parliamentary representative to the proposal to rebuild the State tuberculosis hospital there. Their objection is based ostensibly on the fear that the presence of a large chest hospital might lead to the dissemination of tuberculosis among the children attending a high school near by. This bogey seems to have persisted despite the strongest reassurances by competent medical authorities. If only they would waive their objections to the hospital and devote their money and energy to sponsoring a tuberculosis case-finding survey among the children of the district and among teachers and parents, vast suffering might be averted. In such a scheme the local corporation and the State health authorities might well pull together and achieve tangible and gratifying results.

ACUTE PUERPERAL HYPOPHYSEAL NECROSIS.

RECENT literature contains several accounts of the occurrence during the puerperium of acute necrosis of the anterior lobe of the pituitary gland. In 1937 Sheehan, of the Glasgow Royal Maternity Hospital, reported 11 such cases in which death followed delivery within a period of fourteen hours to thirty days. Sheehan also reviewed 60 cases of acute anterior pituitary necrosis collected from the

¹The Journal of the American Medical Association, November 18, 1939.

literature, and pointed out that the greatest number with massive involvement occurred *post partum*. Simmonds described a similar association in the condition of chronic hypophyseal insufficiency that bears his name. Clark E. Brown and Lawrence F. Eder¹ describe a case of acute puerperal hypophyseal necrosis in a *primipara*, forty-three years of age. This patient was first seen six weeks before term. Her pregnancy was apparently normal until two weeks before labour, when the urine contained a trace of albumin and her systolic blood pressure reading was 162 millimetres of mercury.

On admission to hospital, shortly after the onset of labour, the patient had some oedema of the ankles and a peculiar brown discoloration of the skin. Labour progressed slowly, with irregular shallow contractions. The cervix became fully dilated and effaced after 14 hours. Two hours later, as no progress was apparent, and in view of the hypertension and albuminuria, it was deemed wise to interfere. A lateral episiotomy was done, and a healthy baby was delivered in the left occipito-anterior position by low mid-forceps. Numerous attempts to express the placenta were unsuccessful. The patient was sent to bed with the placenta retained but with no bleeding. At midnight, 1½ hours after delivery, the patient suddenly became pulseless. After receiving stimulants and immediate glucose in saline followed by acacia and blood intravenously she recovered rapidly and the placenta was expressed with some difficulty. The blood lost at delivery and placental extraction was not above 700 cubic centimetres. She received 2 blood transfusions and for the next 12 hours her condition seemed good and she complained only of headache. Her abdomen then became distended and she began to vomit. These symptoms were relieved by treatment, but the patient's general condition was not good. On the third day *post partum*, in spite of intravenous medication and ephedrine, the systolic pressure measured less than 90 mm. of mercury. Readings on the fourth and last day *post partum* were 60/30, 90/65, 75/30, 50/20, 55/25, 90/48. She became drowsy and cyanotic and died 93 hours after delivery. Blood examination on the last day showed that the red blood cells numbered 4,100,000 per cubic millimetre; the hæmoglobin value was 82%, the leucocytes numbered 15,000 per c.mm.

This detailed history is of considerable interest; it is quite possible that a correct diagnosis is missed in similar cases, especially when autopsies are not possible. In the case here described post-mortem examination revealed no abnormality of the heart, lungs, alimentary or renal tracts. The liver was somewhat enlarged, but this enlargement appeared to be congestive; the central venules were distended with blood, but the liver cells remained intact. The pituitary gland weighed one gramme; it was softened and had a yellow colour. Histological examination revealed many areas of necrosis. The appearances suggested infarction. Portion of the gland was assayed for adrenotropic and gonadotropic hormones. Neither of these could be demonstrated.

The authors admit that the question may well be raised as to whether the pituitary necrosis was a coincidental or a major factor in their patient's death. The lack of other post-mortem findings seems to show that it was a major factor. They suggest that acute hypophyseal insufficiency may be a more common puerperal complication than is usually recognized, and suggest the use of glucose

therapy and anterior pituitary extracts in the treatment of symptoms such as their patient showed. They do not discuss the recurrence of acute hypophyseal insufficiency in successive pregnancies. Other writers have affirmed that this occurs, especially in asthenic, elderly or prematurely aged patients. Probably the condition is related to various grades of Simmonds's disease. The mechanism of pituitary necrosis occurring at or just after delivery is not understood. Embolism has been suggested, but the possibility of thrombosis of the vascular channels in the gland should be considered. Changes in the blood at the puerperium, such as increased fibrinogen content and platelets, favour such a hypothesis. Post-partum hæmorrhage with retained placenta may augment the coagulability of the blood. Erdheim and Stumme describe the prompt puerperal involution of the pituitary; this may favour thrombosis of the pituitary vessels. Puerperal infection does not seem to play any important part.

THE CENTENARY OF ERNST ABBE.

A CENTENARY of interest to all who use the microscope is that of Ernst Abbe, who was born in 1840 and died in 1905. Some of his inventions made possible the great progress in bacteriology and histology achieved in the latter part of the last century and still continuing.

Abbe was the son of a foreman cotton spinner. At the age of twenty-two he graduated as a doctor of philosophy in the University of Göttingen, by a thesis on the mechanical equivalent of heat, and in the following year he was appointed lecturer in mathematics and physics at Jena, where he published another thesis on the calculation of errors arising in the subjects of mathematics, physics and astronomy. In 1866 Carl Zeiss, a local optical instrument maker, consulted him for mathematical advice. At that time even the best microscopes made were not constructed to a predetermined formula, but the lenses required for the eye-pieces and objectives were ground and polished and the images of small objects viewed with them were carefully criticized; then the lenses were ground and polished again, many times if necessary, the remedy of one defect possibly exaggerating another, until at last a good image was obtained. With the association of Zeiss and Abbe the systematic development of microscopic optics began. Abbe, whose mind was not narrowed by experience of any recognized system of research, set himself to understand in detail the factors affecting the course of the light rays in the microscope and to determine what features would have to be incorporated in a lens system so that defects necessitating regrinding might not be present. The study was necessarily an abstract one at first, for at that time there was no such thing as optical glass, and the glass makers, in Abbe's words, catalogued their products according to their specific gravity, "as if they were

¹ The American Journal of the Medical Sciences, August, 1939.

to be used as ship's ballast". For years he and Zeiss combined with sober optics a species of dream optics, in which they used combinations made with hypothetical glass and existing only in the imagination. The story of the development of optical glass does not concern us here; it was soon forthcoming, and in a few years the methods of manufacturing microscopes had been revolutionized. Abbe made numerous inventions, which we cannot discuss even in outline; some of them, which have been of outstanding value to medicine, and especially to bacteriology, are the illuminating apparatus or condenser (1872), the homogeneous immersion objective, computed by Abbe at the suggestion of J. W. Stephenson (1872), and the apochromatic lens system (1886). For his indirect services to medicine the University of Halle conferred on him the honorary degree of doctor of medicine. Abbe was very dilatory in enunciating to the world his fundamental contributions to the science of microscopic optics; "rather", in the words of one of his biographers, "did he almost sedulously guard his trust". The Zeiss works prospered exceedingly, and in 1875 he became joint proprietor. On the death of Zeiss in 1888 he assumed full control and instituted a great deal of sociological work for the benefit of the employees. In 1891 he constituted the Carl Zeiss Foundation, a body corporate with perpetual succession to direct the Zeiss works, and to it he surrendered by deed of gift his proprietary interests. For the composition of the charter of this foundation the university conferred on him the degree of doctor of laws. In 1900 the effects of overwork, opposition and responsibility induced serious insomnia, and this, together with the remedies he used, undermined Abbe's health so completely that he was compelled to withdraw from his professional duties. But the comparative leisure so obtained did not bring about any lasting improvement, and "soon all hope vanished that the remaining years of quiet might serve to collect and record all that had been restored in the recesses of an all but too rich mind".

It is sad to think that the great institution to which this brilliant man gave all he had, and from which in his day came so many inventions for the benefit of mankind, is now working at feverish tempo to produce sighting telescopes, range-finders, periscopes, searchlights, aerial reconnaissance cameras and the many optical instruments of human destruction.

A JOURNAL DEVOTED TO ORTHOPTICS.

THE first number of *The British Orthoptic Journal*, bearing the date 1939, has been received. It is published under the auspices of the British Orthoptic Society. This society shows its courage in starting a new journal at such a time as the present, and we hope that, in spite of the war and all its attendant troubles, the importance of the subject will spell success for the venture. We would bid the British Orthoptic Society not to be down-

hearted, even though the immediate future should prove difficult. This word of encouragement is justified by the fact that *THE MEDICAL JOURNAL OF AUSTRALIA* first appeared exactly one month before the declaration of war in 1914. If the standard set in the first number of the new journal is maintained, there should be little doubt about future success.

Readers of *THE MEDICAL JOURNAL OF AUSTRALIA* do not need to be reminded of the value of orthoptics in present-day ophthalmology, nor of the necessity for the training and control of those who practise it. Until the British Orthoptic Society was formed in July, 1937, there was no organization in Great Britain that could act as a central controlling body. The society consists of a parent body, and provision is made in the constitution for the formation of local branches in different areas whenever numbers warrant such a step. The publication of this new journal is the natural corollary of the formation of the society.

This first number of the journal has a preface by Dr. C. L. Gimblett, in which he pays a tribute to the late Claud Worth, one of those on whose work the modern conception and practice of orthoptics are built. The original articles are full of interest and deal with many subjects; three of them are abstracted in another page in this issue. *The British Orthoptic Journal* should be of great benefit to those who practise orthoptics, from both the scientific and ethical points of view. It is to be hoped that ophthalmic surgeons will take a practical interest in it, for by helping it and its sponsors they will be promoting the efficiency of an important arm of their own service to the public. The address of the British Orthoptic Society is 18, Devonshire Street, London, W.1.

ANOTHER "NUTRITION SUPPLEMENT" IN BRISBANE.

ON April 15, 1940, the *Brisbane Courier-Mail* produced its fifth annual "Nutrition Supplement". The appearance of these supplements each year is a tribute to the keenness of the Queensland Nutrition Council, which sponsors them, and of the Editor of the *Courier-Mail*, who makes space available for their appearance and who cooperates with the Queensland Nutrition Council in other ways. This year the articles have their usual crispness and direct appeal, but, as might be expected, the war has not been forgotten. The main article is headed "Nutrition Thoughts Inspired by War Conditions: Fight Life's Battle with Right Food". Another is "Malnutrition More Deadly than Bullets". The cooperation of the newspaper management is shown by the obviously careful way in which the advertisements that accompany the reading matter have been selected. In congratulating the Queensland Nutrition Council and the *Courier-Mail* on their efforts in the public welfare, we would assure them of the sympathetic interest of the members of the British Medical Association throughout the Commonwealth.

Abstracts from Current Medical Literature.

OPHTHALMOLOGY.

Improvement in Vision of Damaged Retinæ.

G. GUIST (*Klinische Monatsblätter für Augenheilkunde*, July, 1939) discusses a method for the improvement of the vision when impaired nutrition of the retinal cells has caused functional loss without actual destruction of the cells themselves. Reasoning that the most effective method of treatment should be one which supplies to the damaged circulation an excess of the specific substance required by retinal cells, he has tried the effect of subconjunctival injections of a preparation from healthy animal retinæ. By this means he has obtained visual improvement in cases of detachment, disciform degeneration, senile macular degeneration, chorioidal sclerosis and myopic degeneration (in all of which it is the outer neurones that are affected), and also in hemorrhage or fatty degeneration due to high blood pressure, diabetes and kidney diseases. In most cases the improvement occurs within about three hours of the injection, and may be maintained only by repeated injections at intervals of three to five days.

Traumatic Heterophoria.

SHEILA MAYOU (*The British Orthoptic Journal*, Volume I, Number 1, 1939) reports the effect of orthoptic treatment on six cases of diplopia with heterophoria due to toxins or trauma. In the five successful cases treatment had been begun within three months of onset, and encouragement of the patient as well as exercise of his muscles had probably accelerated and assured the cure, which may, however, often be attained by time and rest alone. The sixth patient was treated unsuccessfully after a duration of two and a half years.

The Marking of the Bulbus for the Localization of Foreign Bodies.

HENNING RÖNNE (*Ophthalmologica*, February, 1940) has described a method for determining the position of intraocular foreign bodies by radiography. A small, very thin, silver husk or shell is placed at the upper limbus. If the shell is of suitable size and curvature no irritation is set up. It can be securely fixed only on the upper limbus; on the sides and downwards it is too readily detached. When it is desirable to attach it below, the author makes a small hole in the conjunctiva with a dissection needle and inserts the point of a stilet from a hypodermic needle which has melted into the form of a pinhead. A length of about five to six millimetres is used and the head is left free on the surface. If necessary, two such stilets are inserted in the respective quadrants and an angle

or cross is formed. During the exposure the patient must rotate the eye so that these subconjunctival markings lie in a frontal plane that is parallel to the photographic plate.

Methods to Shorten Orthoptic Treatment.

SYLVIA JACKSON (*The British Orthoptic Journal*, Volume I, Number 1, 1939), in discussing means by which the orthoptic treatment of squint and phorias may be shortened, recommends special attention to the overcoming of slight degrees of macular suppression by the use of small pictures on the synoptophore. In cases in which suppression is present, either on accommodation only or on divergence, the author attacks the suppression at the angle where it is most evident, even though this may cause an initial increase in the angle of squint. The extra time spent in obtaining perfect binocular fixation is more than compensated by the extra power which it gives to subsequent duction exercises. Other means of shortening the time spent in training are postponement of final stages till the child can read easily, and occlusion for abnormal retinal correspondence.

Orthoptics and Heterophoria.

LIVINGSTONE (*The British Orthoptic Journal*, Volume I, Number 1, 1939) distinguishes between inherent and acquired heterophoria, and between symptom-free and symptom-producing cases, and emphasizes the need for the complete understanding of the individual problems of each patient. Refraction is important, and he uses carefully distributed prisms to overcome diplopia after head injury and for hyperphoria. The author shows that, phylogenetically, monocular dominance is old, whereas balanced binocular vision and stereopsis are new and complex, and therefore more liable to derangement and abnormalities. For diagnosis the history is extremely important. A psychoneurotic state may be due purely to heterophoria. Very careful study must be made of muscle balance, accommodation, the state of macular reception (whether simultaneous, monocular or alternating), and the significance of results in relation to each other. The primary factor in treatment is to obtain full cooperation from the patient, who can usually do most of the exercising himself, with weekly advice from the orthoptist. The author uses rotating stereograms to overcome monocular neglect, and later trains the power of duction in the required direction by means of stereoscopic pictures. Finally the author discusses heterophoria in relation to flying, and shows the wide discrepancies in the standards for pilots of various nations. Further research is necessary to decide whether certain slight abnormalities which at present disqualify candidates for the Royal Air Force, are actually in themselves any bar to perfect flying when not combined with other defects. Phorias

which develop in the course of flying practice, especially those of the acquired type, usually respond well to orthoptic treatment.

Operation for Spastic Entropion.

J. M. WHEELER (*American Journal of Ophthalmology*, May, 1939) describes the following operation for spastic entropion. Infiltration with 1% "Novocain" solution facilitates the dissection. The skin incision begins six millimetres below the lower lid margin, about the centre of the lid, and is carried into the malar region, about one centimetre beyond the orbital margin. The skin is dissected above and below. A strip of orbicularis muscle four millimetres wide is dissected free below the tarsus, with a cut end at the outer orbital margin, but is left attached at the nasal end. The orbicularis is divided over the malar bone by an incision upwards and outwards, and separated to expose the periosteum. The strip of orbicularis is put on the stretch and sutured to the periosteum by two "000" chromicized catgut sutures. The skin wound is sutured and dressing applied for a week.

Erythema Nodosum in the Conjunctiva.

L. S. GREEN AND M. W. PERRY (*American Journal of Ophthalmology*, April, 1939) report a case of *erythema nodosum* of the conjunctiva. The patient was a woman, aged fifty-four years, with inflamed eyes. Situated over the insertion of the four recti was a triangular cherry-red area of hyperæmic conjunctiva with its base at the limbus. At the centre of each area were two to four nodes, the size of a small pinhead. No reaction followed an injection of tuberculin. After a few days the patient had fever, joint pains, and below the elbows and knees nodules of *erythema nodosum*. She recovered in eight weeks.

OTO-RHINO-LARYNGOLOGY.

Non-Traumatic Ventilation Treatment of the Nose and Sinuses.

SIDNEY N. PARKINSON (*The Journal of Laryngology and Otology*, October, 1939) discusses non-traumatic ventilation treatment of the nose and sinuses. For intranasal medication during acute inflammation of the nose and sinuses it is best to use a drug with known useful action and with known freedom from local tissue reaction. A drug for intranasal use should be prepared in a vehicle known to be physiologically compatible with nasal secretion. This will prevent the occurrence of local tissue reaction from the vehicle. The main factors requiring compatibility are tonicity and hydrogen ion concentration. Damage to the cilia and to the epithelial cell walls results from errors in either factor. A physiological solution of sodium chloride made with tap water, sterilized by boiling, and

free from preservatives and antiseptics, appears to be a satisfactory vehicle. In acute infection of the nose and sinuses treatment solutions are best applied by atomizers and by head-low posture. Thus is avoided the physical trauma to nasal and sinus epithelium inherent in the use of tampons, trocars, cannulas and other mechanical means. The head-low posture of choice is the lateral head-low position, for the following reasons. It is designed in accordance with the anatomy of the living nose. Although asymmetrical with regard to the skull, it is symmetrical with regard to the nasal structure. All the sinus ostia are reached by this posture. It is practicable from infancy to old age. It is comfortable; in fact it resembles the position of sleep sufficiently to cause no fear in small children. The head is at the same level as the rest of the body, with the exception of part of the chest. Hence there is a minimal gravitation into it of venous blood from the trunk and extremities. This is of real importance, especially in elderly persons. The posture is easily effected in the home or in the consulting room, and requires no special equipment. A cot and a pillow are all that is needed. With infants and small children the posture is best obtained over the lap of an attendant. An intelligent mother or nurse is easily taught the technique. None of the therapeutic fluid need reach the pharynx or mouth in this posture at any stage of treatment. This is important. Drugs used in the nose are for local effect only, and their effect when swallowed or aspirated serves no useful purpose.

The Voice after Direct Laryngoscopic Operations, Laryngofissure and Laryngectomy.

CHEVALIER L. JACKSON (*Archives of Otolaryngology*, January, 1940) discusses the question of the voice after direct laryngoscopic operations, laryngofissure and laryngectomy, and concludes that after direct laryngoscopic operations for the removal of benign tumours the voice should, except in special cases, be restored to normal clarity. Nodules of the vocal cords should be carefully removed by direct laryngoscopic procedure (or by indirect laryngoscopic procedure if preferred). However, in the treatment of professional singers it is perhaps best to try first a period of vocal rest and special exercises. While voice is of secondary importance in procedures undertaken for the eradication of a malignant tumour, the reply to a questionnaire sent out to a series of patients who had had laryngofissure or laryngectomy for cancer of the larynx showed that the majority had been able to develop useful voices and to resume their original occupations. Most of the patients who had developed a voice after laryngectomy considered it "good", while the majority of patients who had had laryngofissure considered their voices

only "fair". While many patients acquire spontaneously the knack of bucco-oesophageal speech, it is best to give patients who have had the larynx removed, a systematic course of voice lessons, as advocated by Morrison, just as soon as the wound is healed. The artificial larynx should not be tried until after the patient has made some effort to develop a voice without it.

Short-Wave Diathermy in Treatment of Nasal Sinusitis.

A. R. HOLLENDER (*Archives of Otolaryngology*, November, 1939) discusses short-wave diathermy in the treatment of nasal sinusitis. The introduction of short-wave diathermy has led to a more general utilization of heat therapy in the management of inflammatory processes. Local deep heating of the areas in which the sinuses are situated produces analgesia through hyperæmia and hyperlymphia, improves tissue metabolism, increases resorption and consequently brings about a more rapid defensive response to infection. Proper selection of cases is one of the primary prerequisites for the scientific utilization of short-wave diathermy as a therapeutic agent in nasal sinusitis. Experiments reveal that local tissue temperature is not appreciably elevated, or is elevated only slightly, a fact not altogether reconcilable with clinical results, especially in cases of acute sinusitis. Short-wave diathermy is not in itself sufficiently effective as a therapeutic agent in acute sinusitis, and may occasionally lead to serious consequences when conventional treatment is omitted. Short-wave diathermy is an effective therapeutic aid to other procedures in acute maxillary sinusitis, but is practically valueless in the large majority of cases of chronic disease of the maxillary sinus.

Argyria Resulting from Intranasal Medication.

BEN L. BRYANT (*Archives of Otolaryngology*, January, 1940) issues a warning of the danger of the production of generalized argyria from the use of silver-containing intranasal medication. The generalized pigmentation of argyria is permanent; therefore, its only reasonable treatment is prevention. Generalized argyria is apt to result from the photochemical action of light when the body carries silver equal to eight grammes of silver arspenamine. Silver in the usual intranasal medication is absorbed by the nasal membranes and distributed throughout the body. Absorption of silver is experimentally demonstrable after six weeks of regular medication, and in some instances after four weeks. In this study its presence was proved by microscopic examination of the nasal tissues and by biospectrometric examination of several of the internal organs. Widespread generalized deposits of silver were demonstrated throughout the tissue of the lungs of an animal which died from broncho-

pneumonic lesions as the result of the use of intranasal medication containing silver. The use of silver-containing nasal medication over even a few weeks is dangerous and achieves nothing that cannot be accomplished safely and more efficiently by other means. Measures should be taken to see that the public is warned of the danger of the production of argyria by long-continued self-medication with silver preparations. All such preparations intended for use on mucous membranes should carry a warning statement on their labels.

End Results of Intranasal Operation for Maxillary Sinusitis.

BERT E. HEMSTEAD (*Archives of Otolaryngology*, November, 1939) discusses the end results of intranasal operation for maxillary sinusitis and concludes that the intranasal window operation is easily and quickly accomplished with the patient under local anaesthesia. Turbinate tissue is not lost when this operation is performed. Reaction to it is much less severe than that following the radical operation. It causes a minimal amount of injury to the lining membrane, which is permitted to return to as nearly normal function as is possible. Polypoid and badly infected membranes have been seen to return to normal after drainage and ventilation have been established. Use of the antroscope is a great aid in determining the necessity of conservative or radical measures. The high percentage of good results obtained with this operation justifies its use in the treatment of certain patients having chronic maxillary sinusitis. Closure of the alveolar fistula is necessary if a good result is to be obtained. This type of operation is not suitable for antra having partitions and dense antranasal walls, nor for antra which contain foreign bodies, nor for an antrum in which the presence of a tumour is suspected. In the author's report 1,634 cases are gathered from the literature. A good result was obtained in 97% of these cases in which the intranasal antral window was used.

Treatment of Acute Suppurative Otitis Media.

OTTO C. HIRST (*Archives of Otolaryngology*, November, 1939), in discussing the treatment of acute suppurative otitis media, concludes that in ordinary circumstances douching of an acutely suppurating middle ear will not carry infection into the mastoid cells. The mercurials of the orthocresol group, alone or with alcohol, are satisfactory douching solutions. The treatment of external otitis should be included along with that of suppurating otitis media. Sulphanilamide therapy can be used to advantage in the treatment of the majority of acute otitic infections. Otitic suppurations continuing eight weeks or longer demand simple mastoidectomy as a measure directed toward the preservation of hearing.

British Medical Association News.

SCIENTIFIC.

A MEETING of the Victorian Branch of the British Medical Association was held at the Medical Society Hall, East Melbourne, on February 7, 1940, Dr. H. C. COLVILLE, the President, in the chair.

Behaviour Problems in General Practice.

DR. ANITA MÜHL read a paper entitled "Behaviour Problems in General Medicine" (see page 651).

DR. H. SELBY LINK emphasized the importance of letting the patient talk and tell the doctor freely about his own experiences and feelings. He recounted briefly the case of a man who had consulted him with signs and symptoms suggestive of peptic ulcer; when he had asked the patient casually whether he thought any worry or emotional stress was associated with the complaint, the patient had assured him that there was such an association, but that twenty-five different doctors had refused to listen when the patient had tried to draw attention to the association. Dr. Link added that an observant physician could not help but notice the association between inward thoughts and feelings and outward symptoms.

DR. M. M. ROSEFIELD said that he thought that most general practitioners tried to follow the precepts that Dr. Mühl had made sound so simple in her address; but, speaking as one of them, he had sometimes felt that he had left the patient with mental uncertainty, which in itself might be harmful; being misunderstood might be worse for a slow-moving talkative person than even the peptic ulcer complex.

DR. I. J. PAULL referred to the relaxation technique as a method of valuable palliative treatment; many patients had restless minds and derived benefit from the induction of mental relaxation.

DR. H. C. COLVILLE conveyed to Dr. Mühl the appreciation of those present of her interesting address, and added that among the illustrations she had used he had recognized the types of many of his own old friends and enemies.

Dr. Mühl, in reply, mentioned that she was not in practice in Melbourne, but that it was her custom when in practice to ask the patients to write out an account of their fears and resentments and the things that had hurt their feelings; subsequently at the consultation she was able to pick out the salient points and discuss them with the patient. The mere discussion was the releasing factor; it was important to relate the symptoms to the emotional disturbances. Dr. Mühl explained that the relaxation technique she used had been developed by herself; to explain it would require more time than was at her disposal; but it was something that the patients could learn to do for themselves. She added that she would welcome the formation of discussion groups consisting of not more than eight medical practitioners, and she would be prepared to discuss that and allied subjects with them.

Post-Graduate Work.

COURSE IN MEDICINE AT SYDNEY.

A COURSE suitable for candidates for examination for Membership of the Royal Australasian College of Physicians has been arranged by the New South Wales Post-Graduate Committee in Medicine, and will be held at the Prince Henry Hospital from June 3 to August 6, 1940. Some subjects will be taken at Sydney Hospital, Royal Prince Alfred Hospital and the Royal Alexandra

Hospital for Children. The course will include the week-end course in electrocardiography (June 22 and 23), the week-end course in medicine (July 27 and 28), and attendance at one demonstration of the *fundus oculi*.

The programme is as follows:

- Monday, June 3, at 2.30 p.m.—Ward rounds: Dr. S. A. Smith.
- Wednesday, June 5, at 2.15 p.m.—Ward rounds: Dr. R. Jeremy; 4.30 p.m.—"Recent Work in Hypertension and Nephritis", Part I: Dr. F. B. Byrom.
- Thursday, June 6, at 10 a.m.—Pathological demonstration—morbidity anatomy: Dr. F. B. Byrom; 2.30 p.m.—Ward rounds: Dr. S. A. Smith.
- Friday, June 7, at 9.15 a.m.—Ward rounds: Sir Charles Bickerton Blackburn.
- Monday, June 10, at 2.30 p.m.—Ward rounds: Dr. S. A. Smith; 4.30 p.m.—Library seminar.
- Tuesday, June 11, at 2 p.m.—"Pulmonary Tuberculosis": Dr. W. A. Bye (at the A2 Lecture Theatre, Royal Prince Alfred Hospital).
- Wednesday, June 12, at 2.15 p.m.—Ward rounds: Dr. R. Jeremy; 4.30 p.m.—"Recent Work in Hypertension and Nephritis", Part II: Dr. F. B. Byrom.
- Thursday, June 13, at 2.30 p.m.—Ward rounds: Dr. S. A. Smith.
- Friday, June 14, at 9.15 a.m.—Ward rounds: Sir Charles Bickerton Blackburn.
- Monday, June 17.—Public holiday.
- Tuesday, June 18, at 2 p.m.—"Pulmonary Tuberculosis": Dr. W. A. Bye (at the A2 Lecture Theatre, Royal Prince Alfred Hospital).
- Wednesday, June 19, at 2.30 p.m.—Demonstration in radiology of diseases of the lungs and heart: Dr. B. P. Anderson-Stuart.
- Thursday, June 20, at 10 a.m.—"Infectious Diseases": Dr. N. J. Symington; 2.30 p.m.—Ward rounds: Dr. S. A. Smith.
- Friday, June 21, at 9.15 a.m.—Ward rounds: Sir Charles Bickerton Blackburn; 2.15 p.m.—Seminar: "Dyspnoea and Cyanosis"; 4 p.m.—Demonstration in radiology of gastro-intestinal diseases: Dr. J. G. Edwards.
- Saturday June 22, at 10 a.m.—Pathological demonstration—haematology: Dr. E. B. Jones; 2 p.m.—Special course in electrocardiography.
- Sunday, June 23, at 10 a.m.—Special course in electrocardiography.
- Monday, June 24, at 2.30 p.m.—Ward rounds: Dr. S. A. Smith; 4.30 p.m.—Clinico-pathological conference.
- Tuesday, June 25, at 2 p.m.—"Pulmonary Tuberculosis": Dr. W. A. Bye (at the A2 Lecture Theatre, Royal Prince Alfred Hospital).
- Wednesday, June 26, at 2.30 p.m.—Ward rounds: Dr. R. Jeremy.
- Thursday, June 27, at 2.30 p.m.—Ward rounds: Dr. S. A. Smith.
- Friday, June 28, at 9.15 a.m.—Ward rounds: Sir Charles Bickerton Blackburn.
- Monday, July 1, at 2.30 p.m.—Ward rounds: Dr. S. A. Smith.
- Wednesday, July 3, at 2 p.m.—Demonstration of the *fundus oculi*: Dr. R. North (at Sydney Hospital).
- Thursday, July 4, at 10 a.m.—"Infectious Diseases": Dr. N. J. Symington; 2.30 p.m.—Ward rounds: Dr. S. A. Smith.
- Friday, July 5, at 9.15 a.m.—Ward rounds: Sir Charles Bickerton Blackburn; 2 p.m.—Lecture on the acid-base equilibrium of the blood: Dr. C. G. McDonald; 4.15 p.m.—Demonstration in radiography—diseases of bones: Dr. J. G. Edwards.
- Saturday, July 6, at 10 a.m.—Pathological demonstration of bacteria and parasites.
- Monday, July 8, at 2.30 p.m.—Ward rounds: Dr. S. A. Smith; 4.30 p.m.—Library seminar.
- Wednesday, July 10, at 2.30 p.m.—Ward rounds: Dr. R. Jeremy.
- Thursday, July 11, at 2.30 p.m.—Ward rounds: Dr. S. A. Smith.
- Friday, July 12, at 9.15 a.m.—Ward rounds: Sir Charles Bickerton Blackburn.

Monday, July 15, at 2.30 p.m.—Ward rounds: Dr. S. A. Smith.

Wednesday, July 17, at 2.30 p.m.—Ward rounds: Dr. R. Jeremy.

Thursday, July 18, at 2.30 p.m.—Ward rounds: Dr. S. A. Smith.

Friday, July 19, at 9.15 a.m.—Ward rounds: Sir Charles Bickerton Blackburn.

Monday, July 22, at 2.30 p.m.—Lecture on varieties and treatment of peripheral vascular disease: Dr. J. Halliday; 4.30 p.m.—Clinico-pathological conference.

Wednesday, July 24, at 2.30 p.m.—Ward rounds: Dr. R. Jeremy.

Thursday, July 25, at 2.30 p.m.—Ward rounds: Dr. S. A. Smith.

Friday, July 26, at 9.15 a.m.—Ward rounds: Sir Charles Bickerton Blackburn; 2.15 p.m.—Pathological demonstration (biochemistry): Mr. R. J. Bartholomew; 4.15 p.m.—Lecture on acidemia and alkalosis in disease: Dr. C. G. McDonald.

Saturday, July 27, at 9.15 a.m.—Week-end course in medicine.

Sunday, July 28, at 9.15 a.m.—Week-end course in medicine.

Monday, Tuesday, Wednesday, July 29, 30, 31.—Special course in medical and surgical diseases of children at the Royal Alexandra Hospital for Children.

Tuesday, August 6, at 2 p.m.—Demonstration of the *fundus oculi*: Dr. E. A. Brearley (at the A2 Lecture Theatre, Royal Prince Alfred Hospital).

The Diabetic Clinic at the Prince Henry Hospital is open every Wednesday morning. No formal instruction has been arranged, but Dr. R. J. Millard is willing that candidates should visit the clinic whenever they desire on the days specified.

The fee for the full course is ten guineas.

The above list includes four periods of concentrated instruction, beginning on June 19, July 3, July 25 and July 29. They have been arranged for the convenience of country practitioners, and the fee for each period respectively is three guineas, anyone taking the four periods being registered for the full course.

Applications for registration, accompanied by a remittance for the amount of the fee, must be made to the Secretary, New South Wales Post-Graduate Committee in Medicine, the Prince Henry Hospital, Little Bay.

Naval, Military and Air Force.

APPOINTMENTS.

The undermentioned appointments, changes *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Number 75, of April 24, 1940.

PERMANENT NAVAL FORCES OF THE COMMONWEALTH (SEA-GOING FORCES).

Appointment.—Surgeon Lieutenant Leo John Harrison (Emergency List) is appointed for temporary service, dated 8th April, 1940.

AUSTRALIAN MILITARY FORCES.

NORTHERN COMMAND.

First Military District.

Australian Army Medical Corps.

Major F. G. Scoles is appointed to command the 7th Field Ambulance and is granted the rank of Temporary Lieutenant-Colonel, 1st April, 1940.

Australian Army Medical Corps Reserve.

Captain (provisionally) C. A. C. Leggett is transferred from the Australian Army Medical Corps, Eastern Command, and to be Honorary Captain, 19th May, 1940.

EASTERN COMMAND.

Second Military District.

Australian Army Medical Corps.

Captains A. R. H. McLeod, C.B.E., and A. R. P. Henderson are placed upon the Retired List with permission to retain their ranks and wear the prescribed uniform. Honorary Captain J. McVittie is retired.

SOUTHERN COMMAND.

Third Military District.

Australian Army Medical Corps.

To be Major (temporarily)—Captain H. A. Phillips, with regimental seniority next after Major (temporarily) G. Pern, 28th March, 1940. *To be Captains (provisionally)*—Keith Brayton Brown and Alan Vaughan Jackson, 18th March, 1940, and 29th March, 1940, respectively. Captain (provisionally) H. F. G. McDonald is brought onto the Authorized Establishment, 3rd Military District, 21st January, 1940. Major R. A. Siree is retired.

Australian Army Medical Corps Reserve.

To be Honorary Captains—Gerald Talbot Darnton Watson, Alfred Bayley, John William Carter, Henry Simon Davis and John Malcolm Piercey, 28th March, 1940.

Fourth Military District.

Australian Army Medical Corps.

Honorary Captain A. T. Harbison is appointed from the Reserve of Officers (A.A.M.C.) and to be Captain (provisionally), 3rd April, 1940.

Australian Army Medical Corps Reserve.

To be Honorary Captains—Cyril Chambers, 4th March, 1940; Thomas Alan Britten Jones, 11th March, 1940; Karl Johannes Basedow, 13th March, 1940; Frank Phillips, 16th March, 1940; Sydney Krantz and Donald Campbell Dawkins, 19th March, 1940; John Charleton Yeatman, 20th March, 1940; Malcolm Vindin Samuel, Francis Ignatius Flaherty and Desmond Thomas Matthew Hayes, 26th March, 1940; John Francis Funder and Josiah Mark Bonnin, 27th March, 1940.

Sixth Military District.

Australian Army Medical Corps Reserve.

To be Honorary Captain—John William Hugh Merry, 14th March, 1940. The appointment of Honorary Lieutenant A. N. Poulton is terminated.

WESTERN COMMAND.

Fifth Military District.

Australian Army Medical Corps Reserve.

Lieutenant-Colonel J. Bentley, M.C., is placed upon the Retired List with permission to retain his rank and wear the prescribed uniform.

Seventh Military District.

Australian Army Medical Corps.

To be Major (temporarily)—Captain (provisionally) W. B. Kirkland, 1st April, 1940. *To be Captain (provisionally)*—Ian Campbell Macdonald, 1st April, 1940.

ROYAL AUSTRALIAN AIR FORCE.

Citizen Air Force.

Medical Branch.

Alfred Sydney de Bohun Cocks, M.B., M.S., D.L.O. (R.C.P. and S.) is granted a commission on probation with the rank of Flight Lieutenant with effect from 1st June, 1940.

Reserve: Medical Branch.

Flying Officer J. M. C. Philpott, M.B., B.S., is transferred from the General Duties Branch to the Medical Branch, and promoted to Flight Lieutenant, with effect from 15th April, 1940.

The following is granted a commission on probation with the rank of Flight Lieutenant with effect from 15th April, 1940: Dennis Thorman Shortbridge, M.B., B.S.—(Ex. Min. No. 22.—Approved 23rd April, 1940.)

Special Correspondence.

PARIS LETTER.

FROM OUR SPECIAL CORRESPONDENT.

THE questions confronting French doctors continue to be above all of a military and administrative nature; apart from its application to problems arising from mobilization and war, science no longer takes any but second place. Attention is held at present by the work of Parliament or by government decrees dealing with medical matters. A proof of this was given by the extremely interesting discussion which took place in the Senate on the organization of the Military Health Service. One of the speakers, M. Lefas, expressed the wish to see the health service regulated according to its needs, in such a way that there should be no disproportion between the organization provided for and the real needs of the army. As a matter of fact, in anticipation of military emergencies which did not occur (the "lightning war"), a very great number of doctors joined the army; the result has been disorganization in many towns and municipalities, the population of some of which had in the meantime been increased by a number of refugees. According to the speaker, obstetricians in particular were needed in many cases. It appears also that too many schools, clinics and hotels were requisitioned, in places, moreover, where it was not easy to organize hospitals that could be utilized under good conditions.

Professor Portmann, of Bordeaux, a Senator who was listened to attentively, associated himself with these observations, and particularly those on the subject of mistakes made in an extremely delicate task, the distribution of the medical personnel.

It was also requested in the course of this discussion that young soldiers should be sent to the front, even students to replace older doctors, who would be more useful behind the lines, and, above all, that civil and military doctors should be placed on the same footing—that is to say, should be considered as technically interchangeable.

The Under-Secretary of State for War, M. Ducos, replied to these criticisms with statements which must claim attention, because they show the confusion caused by war in medical life, civilian as well as military. He pointed out first of all that the proportion of doctors left for the civil population during the previous war was half that left in 1939. Further, the Military Health Service found since mobilization that it had a great number of civil responsibilities (refugees, unemployed, foreigners detained in special camps, the examination of colonial or foreign workers), without taking into account the functioning of councils for revision and of reform commissions, which require a fairly large medical personnel.

On the other hand, the number of specialists in the army has been considerably increased; specialists have been accepted for cranio-cerebral surgery, for pulmonary surgery, for oto-rhino-laryngology, for radiology and for stomatology, so that the proportion of these doctors in the armed forces has reached 35%. All things considered, the Under-Secretary of State pointed out, many more doctors were required than had been expected, and in any case it was essential to be prepared for all eventualities.

Certain premises, chiefly sanatoria, taken over on the declaration of war, have since been freed and handed back to the civil medical authorities. The same applies to certain educational establishments, public or private; an attempt is being made to restore them to their normal purposes.

Still concerned with the needs of civilian life, the Government has freed sufficient doctors to permit of each county having 15 or 20; moreover, 1,000 students are to be appointed "auxiliary doctors"—that is to say, they are

to be given the rank of adjutant and drafted to the armed forces. This will allow older doctors to be released and sent back to civilian life.

On the other hand, the Government has undertaken some extremely interesting experiments from the point of view of the replacing of civilian doctors, whom their patients pay, by military doctors given military pay by the State. When a military doctor is called to see a civilian who is ill, he asks for payment according to the terms fixed by the syndicate of doctors of the district, and gives a receipt. The sum thus charged is not, however, kept by the military doctor, but is paid into a special fund, upon which the syndicate of doctors may draw to meet the expenses for material and such things required by the military doctor. Thus hardships and injustices are avoided.

On a somewhat similar subject one must mention a decree of July 29, 1939, which constitutes a veritable "code" for the French family. It comprises constructive provisions favouring an increase in the birth rate, bonuses for first children, family allowances, protection of mothers, children and the race *et cetera*, and contains, as a natural consequence, a series of clauses devoted to abortion. The penalties provided for those who procure or attempt to procure an abortion, like those for women who have had, or have tried to have, an abortion procured, are very high (imprisonment for one to five years and a fine of 500 to 10,000 francs for the former, imprisonment for six months to two years and a fine of 100 to 2,000 francs for the latter). In addition, doctors, midwives, pharmacists, herbalists, nurses *et cetera* who give information on how to procure an abortion may find themselves debarred from practising their profession for five years. For old offenders the penalties are naturally increased.

Moreover, therapeutic abortion is regulated by a special clause. The attending doctor or the surgeon is, in such a case, obliged to take the opinion of two consultants, one of whom must be chosen from the list of experts held at the civil court. These consultants must testify in writing that the life of the mother can be safeguarded in no other way than by means of such therapeutic interference. Finally, a strict inspection of obstetric hospitals has been organized. This is a measure that has been demanded for a long time.

The prophylaxis of venereal diseases was the subject of a very important decree published in the *Journal officiel* of December 7, 1939; this decree originated in a bill drawn up by the Government a few years ago, which, in spite of its importance, had not yet been made law by Parliament. Among the points in this decree which are worthy of attention is the authorization of the attending doctor to report the patient to the military authorities, without incurring the penalties attending violation of professional secrecy—a veritable revolution for the French doctor.

Further, this decree orders every suspect to produce a medical certificate. A certificate of this type must, in particular, be in the possession of every paid wet-nurse who is feeding an infant at the breast. Further, every person who gives an infant into the care of a wet-nurse must make certain that she is in possession of this certificate.

Clause 18 of this decree makes it compulsory for medical students to spend some time in a venereal diseases clinic.

As is usual in war time, the authorities are attempting to combat alcoholism, which is in danger of doing considerable damage in France. As early as last year the Academy of Medicine, on April 4, 1939, had asked for official instruction to be given against alcohol, for a reduction in the number of licences and regulation of the days and hours of business, and also for the suppression of private wine manufacturers—that is to say, of growers who produce wine or cider and to whom the law grants permission to distil part of their crop on payment of a small fee. In spite of everything, it does not seem that the consumption of alcohol in France is increasing much. According to one of those who understand the question best, M. Edouard Barthe, President of the Drinks Com-

mission of the Chamber of Deputies for the County of Hérault, the largest wine-producing county in France, the consumption of alcohol, which was 1,665,109 hectolitres in 1913 and 1,167,355 hectolitres in 1930, is at present no more than 884,020 hectolitres; moreover, this figure covers 130,000 hectolitres required by perfumers and pharmacists. Nevertheless, a namesake of this deputy, M. René Barthe, in a recent interesting study, has shown the dreadful part played by alcohol. He has studied a series (limited, however) of slightly more than 1,000 workmen or female workers, in which there were 173 cases of chronic or acute alcoholism. This group, one-sixth of the total number, accounts for more than one-quarter of the illnesses and accidents in the home or abroad, as well as for more than one-fifth (23%) of industrial accidents.

Whatever the truth may be, the Government has taken steps designed to reduce still more the consumption of alcohol. A recent decree forbids, actually, the sale of alcoholic *apéritifs* on three days in the week.

Thus one sees to what a point the whole of the national life is directed towards the war effort, and how the administration is attending to the finest details, to prevent disagreement and disruption from appearing in social matters, and that the Government does not hesitate to legislate with energy in domains in which, in time of peace, it would be impossible to come to agreement and act effectively.

Amongst scientific questions recently studied one must draw attention to a communication (Academy of Medicine, December 19, 1939) worthy of notice, particularly in war time, when gas gangrene so frequently complicates wounds. H. Vincent, a professor at the *Val-de-Grâce*, a military school and hospital in Paris, recalled the fact that all attempts to prepare a vaccine capable of immunizing man against the pathogenic agents of gas gangrene had failed. An attempt was then made to attack this disease with preventive or curative serum therapy. As the principal organism varies greatly from one wounded man to another, and even from hour to hour, monovalent serum can be recommended only if the bacteriologists can give immediately the information required, which is not the case. Gas gangrene is caused actually by five different pathogenic anaerobes, each one comprising several species. Furthermore, these bacilli, unlike those of tetanus, are disseminated with great rapidity, and one cannot therefore simply use antitoxic serum therapy. The serum must first of all comply with the main principle of polyvalence of antigens.

To prepare his serum H. Vincent therefore immunizes horses against all viruses of all species and all toxins, and thus strengthens at the same time their antimicrobial and antitoxic power. Injected prophylactically in a dose of 20 cubic centimetres this serum assures the severely wounded wonderful protection. One dose of 60 cubic centimetres is necessary when gas gangrene has declared itself. As an anti-shock agent salicylate of soda and adrenaline are employed. A second dose is injected, if necessary, six to eight hours later. By this means wounded men have been recovered who were on the point of succumbing. The proportion of recoveries during the war of 1914-1918 was more than 89%.

During the war, men wounded in the chest and patients suffering from bronchopneumonia and numerous toxic conditions may benefit by the use of oxygen therapy. Besides fixed apparatus, therefore, it is essential to have mobile units, capable of being rapidly moved about and of supplying, together with a fully trained personnel, the store of oxygen and the equipment (masks) which are needed. It was this consideration that led General Maisonnnet, head of the health service, and Professor Léon Binet to establish a fleet of lorries, each one carrying 70,000 litres of oxygen and capable of supplying oxygen to one or more inhalation apparatus.

On the subject of the treatment of wounds from the surgical point of view, J. L. Roux-Berger and L. Senlecq have emphasized the evils of primary suture and of incomplete removal of splinters. The six instances that they observed led them to conclude that it was very dangerous to carry out primary suture of war wounds,

particularly in the presence of an open fracture. But Professor A. Gosset has photographs which prove the excellence of the results obtained during the last war by the primary suture method. R. Grégoire observed on this subject that two years of apprenticeship were needed before one learned to apply the method in such a way that it became really satisfactory.

As was fitting, many medical journals have devoted a few lines to Georges Clemenceau, doctor, journalist and statesman, whose role in the last part of the war of 1914-1918 was so great, and of whom one must think during the times in which we are now living.

Correspondence.

A REQUEST.

SIR: We would be greatly obliged if one of your readers of *The Lancet* would be kind enough to let us have the copy for July 1, 1939. Our number has gone astray and we will require this for binding the complete volume.

Yours, etc.,

W. W. INGRAM.

Institute of Medical Research,
Royal North Shore Hospital,
Sydney.

April 26, 1940.

Obituary.

A MEMORIAL TO JOHN BROOKE MOORE.

ON March 8, 1940, Alderman M. J. Griffin, Mayor of Bathurst, New South Wales, dedicated to the memory of the late Dr. John Brooke Moore a memorial that had been erected by the people of Bathurst. The memorial is in Machattie Park and takes the form of a lily pond with a paved and stepped approach and partly surrounded by a screen wall, bearing the inscription: "John Brooke Moore, Beloved Surgeon and Physician."

The gathering was large and representative of the people of the city and district. The Reverend S. C. O'B. Ball, of All Saint's Cathedral, acted as chairman. The



Most Reverend John Norton, Roman Catholic Bishop of Bathurst, said that he thought that a water garden was a most suitable memorial for a doctor, and he congratulated the committee on their admirable taste and judgement in selecting it. He also recalled the skill and generosity of John Brooke Moore, and his many years of service to the community.

The Right Reverend A. L. Wylde, Anglican Bishop of Bathurst, also spoke. He referred to John Brooke Moore's

home life and to his hospitality, and said that his memory would live particularly among the people of the "outback".

Dr. Walter J. Stack spoke as a personal friend of John Brooke Moore and as a brother practitioner, and said that he was respected by the medical profession of Bathurst and by practitioners throughout the western areas of the State.

Alderman Griffin, in dedicating the memorial, referred to John Brooke Moore's love of beauty, of trees, flowers and music; the memorial was beautiful and appropriate. Time would not dim the memory of his magnetic personality.

Dr. Brooke Moore expressed his appreciation of what had been done to perpetuate the memory of his father.

We are indebted to Dr. C. B. Howse, of Orange, for the accompanying photograph of the memorial.

GUSTAV TEMPLE HALL BÖHRSMANN.

WE regret to announce the death of Dr. Gustav Temple Hall Böhrsmann, which occurred on April 30, 1940, at Sydney, New South Wales.

Books Received.

AMONG THE LILLIPUTIANS, by F. P. Hayward; 1938. Brisbane: C. J. Walker. Crown 8vo, pp. 68.

MODERN TREATMENT IN GENERAL PRACTICE. YEAR BOOK 1940. A YEARBOOK OF DIAGNOSIS AND TREATMENT FOR THE GENERAL PRACTITIONER, edited by C. P. G. Wakeley, D.Sc., F.R.C.S., F.R.S.E., F.A.C.S., F.R.A.C.S.; 1940. London: The Medical Press and Circular. Demy 8vo, pp. 326, with illustrations. Price: 12s. 6d. net.

LIST OF DRUG SYNONYMS AND TRADE-NAMES, compiled for the Pharmaceutical Association of Australia and New Zealand by the Drugs Sub-Committee of the Australian Association of Scientific Workers, edited by A. Albert, Ph.D., B.Sc.; 1940. Melbourne: Pharmaceutical Association of Australia and New Zealand. Foolscap 8vo, pp. 43.

Diary for the Month.

- MAY 14.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
 MAY 14.—Tasmanian Branch, B.M.A.: Branch.
 MAY 15.—Western Australian Branch, B.M.A.: Branch.
 MAY 21.—New South Wales Branch, B.M.A.: Ethics Committee.
 MAY 22.—Victorian Branch, B.M.A.: Council.
 MAY 23.—New South Wales Branch, B.M.A.: Clinical meeting.
 MAY 24.—Queensland Branch, B.M.A.: Council meeting.
 MAY 28.—New South Wales Branch, B.M.A.: Medical Politics Committee.
 MAY 30.—South Australian Branch, B.M.A.: Branch—Listerian Oration.
 MAY 30.—New South Wales Branch, B.M.A.: Branch.
 MAY 31.—Tasmanian Branch, B.M.A.: Council.
 JUNE 4.—New South Wales Branch, B.M.A.: Organization and Science Committee.
 JUNE 5.—Western Australian Branch, B.M.A.: Council.
 JUNE 5.—Victorian Branch, B.M.A.: Branch.
 JUNE 6.—South Australian Branch, B.M.A.: Council.
 JUNE 7.—Queensland Branch, B.M.A.: Branch—Joseph Bancroft Memorial Lecture.
 JUNE 11.—Tasmanian Branch, B.M.A.: Branch.
 JUNE 11.—New South Wales Branch, B.M.A.: Executive and Finance Committee.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser", pages xvi-xix.

AUSTRALASIAN PHYSIOTHERAPY ASSOCIATION, SYDNEY, NEW SOUTH WALES: Lecturers.

CAIRNS HOSPITAL BOARD, CAIRNS, QUEENSLAND: Assistant Medical Officer.

ROYAL HOSPITAL FOR WOMEN, PADDINGTON, NEW SOUTH WALES: Resident Medical Officers.

THE EASTERN SUBURBS HOSPITAL, WAVERLEY, NEW SOUTH WALES: Honorary Officers.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment referred to in the following table without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

BRANCHES.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 135, Macquarie Street, Sydney.	Australian Natives' Association. Ashfield and District United Friendly Societies' Dispensary. Balmmain United Friendly Societies' Dispensary. Leichhardt and Petersham United Friendly Societies' Dispensary. Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney. North Sydney Friendly Societies' Dispensary Limited. People's Prudential Assurance Company Limited. Phoenix Mutual Provident Society.
VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne.	Associated Medical Services Limited. All Institutes or Medical Dispensaries. Australian Prudential Association, Proprietary, Limited. Federated Mutual Medical Benefit Society. Mutual National Provident Club. National Provident Association. Hospital or other appointments outside Victoria.
QUEENSLAND: Honorary Secretary, B.M.A. House, 225, Wickham Terrace, Brisbane, B.17.	Brisbane Associate Friendly Societies' Medical Institute. Prosperpine District Hospital. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.
SOUTH AUSTRALIAN: Secretary, 178, North Terrace, Adelaide.	All Lodge appointments in South Australia. All Contract Practice Appointments in South Australia.
WESTERN AUSTRALIAN: Honorary Secretary, 205, Saint George's Terrace, Perth.	Wiluna Hospital. All Contract Practice Appointments in Western Australia.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW 2651-2.)

Members and subscribers are requested to notify the Manager, THE MEDICAL JOURNAL OF AUSTRALIA, Seamer Street, Glebe, New South Wales, without delay, of any irregularity in the delivery of this journal. The management cannot accept any responsibility or recognize any claim arising out of non-receipt of journals unless such a notification is received within one month.

SUBSCRIPTION RATES.—Medical students and others not receiving THE MEDICAL JOURNAL OF AUSTRALIA in virtue of membership of the Branches of the British Medical Association in the Commonwealth can become subscribers to the journal by applying to the Manager or through the usual agents and book-sellers. Subscriptions can commence at the beginning of any quarter and are renewable on December 31. The rates are £2 for Australia and £2 5s. abroad per annum payable in advance.